

LBT-A490

SERVICE MANUAL

AEP Model
UK Model

- LBT-A490 is composed of following models.
As for the service manual, it is issued for each component model,
then, please refer to it.

COMPONENT MODEL NAME FOR THESE SYSTEM

	LBT-A490		
	AEP	UK	GERMANY
COMPACT DISC STEREO DECK RECEIVER	HCD-A490		
TURN TABLE	PS-LX56P		
SPEAKER SYSTEM	SS-A490	SS-A390	SS-A490

SPECIFICATIONS

General

Power requirements UK model :
240V AC, 50 Hz
Other model :
220 — 230V AC, 50/60 Hz

Power consumption UK model : 130W
Other model : 150W

Mass Approx. 11.3Kg (24 lb 15 oz) (HCD-A490)
Approx. 2.3Kg (5 lb 1 oz) (PS-LX56P)

Dimensions Approx. 355 x 425 x 355 mm (w/h/d) (HCD-A490)
Approx. 355 x 95 x 345 mm (w/h/d) (PS-LX56P)

Design and specifications are subject to change without notice.

PARTS LIST

NOTE :

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

Part No.	Description
1-467-547-11	COMMANDER, STANDARD (RM-S421)
1-501-374-11	ANTENNA, LOOP
1-501-536-11	ANTENNA (Except Germany)
2-181-754-21	COVER, BATTERY (For RM-S421)
3-758-162-11	MANUAL, INSTRUCTION (ENGLISH) (UK)
3-758-162-31	MANUAL, INSTRUCTION (GERMAN) (Germany)
3-758-162-41	MANUAL, INSTRUCTION (ENGLISH, FRENCH, SPANISH, PORTUGUESE) (AEP)
3-758-162-51	MANUAL, INSTRUCTION (DANISH, FINNISH) (AEP)
* 4-963-204-01	CUSHION
* 4-963-207-01	INDIVIDUAL CARTON (UK)
* 4-963-208-01	INDIVIDUAL CARTON (AEP, Germany)
A-4674-087-A	TURN TABLE MAT ASSY (PS-LX56P)
* 4-947-532-01	SNOW BOX (L) (PS-LX56P)
* 4-947-533-01	SNOW BOX (R) (PS-LX56P)

COMPONENT HI-FI STEREO SYSTEM
SONY[®]



9-959-375-11

Sony Corporation
Audio Group

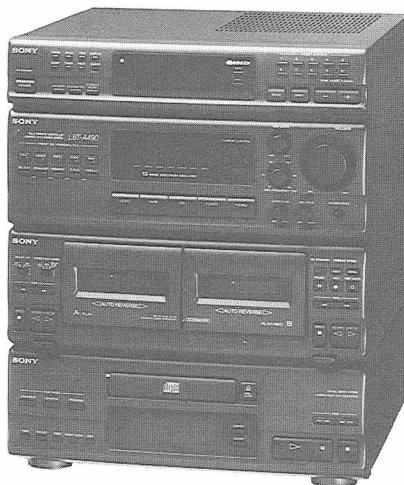
English
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HCD-A490

SERVICE MANUAL

AEP Model
UK Model



HCD-A490 is the tuner, deck, CD and amplifier section in LBT-A490.

Photo : AEP model

CD SECTION	Model Name Using Similar Mechanism		HCD-A390
	CD Mechanism Type		CDM14-5BD13
	Base Unit Type		BU-5BD13
	Optical Pick-up Type		KSS-240A
DECK SECTION	Model Name Using Similar Mechanism		HCD-A390
	Tape Transport Mechanism Type	DECK-A	TCM-190RA12AL
		DECK-B	TCM-190RB53A

SPECIFICATIONS

Compact disc deck receiver (HCD-A490)

Tuner Section

System	FM stereo
FM tuner section	FM/AM superheterodyne tuner
Tuning range	EE, CIS model : 65 to 74 MHz 87.5 to 108 MHz Except EE, CIS model : 87.5 to 108 MHz
Antenna	75 ohms unbalanced
Intermediate frequency	10.7 MHz
AM tuner section	G model : AM : 531 to 1,602 kHz IT model : AM : 522 to 1,611 kHz AEP, UK, EE, CIS, model : MW: 531 to 1,602 kHz LW: 153 to 279 kHz
Tuning range	AM loop antenna External antenna terminal
Antenna	450 kHz
Intermediate frequency	

Amplifier Section

UK model :	
DIN power output	50 W + 50 W (6 ohms, at 1 kHz)
Continuous RMS power output	60 W + 60 W (6 ohms, at 1 kHz, 5% THD)
Music power output	90 W + 90 W (6 ohms)
Except UK model :	
DIN power output	40 W + 40 W (6 ohms, at 1 kHz)
Continuous RMS power output	45 W + 45 W (6 ohms, at 1 kHz, 5% THD)
Music power output	70 W + 70 W (6 ohms)

Input	Jack type	Sensitivity	Impedance
PHONO IN	Phono	3 mV	47 kilohms
VIDEO IN	Phono	300 mV	47 kilohms

Output	Jack type	Impedance
SURROUND SPEAKER	Phono	Accepts speakers of 16 ohms
HEADPHONES	Stereophone	Accepts headphones of 8 ohms or more

Frequency response 15 Hz to 50 kHz -3 dB

- Continued on next page -

COMPACT DISC DECK RECEVIER
SONY®



MICROFILM

Cassette deck Section

Recording system	4-track 2-channel stereo
Frequency response	DOLBY NR OFF With Sony Type II cassette 40 Hz to 14 kHz (± 3 dB)
	With Sony Type I cassette 40 Hz to 13 kHz (± 3 dB)
Wow and flutter	W. PEAK $\pm 0.2\%$ (DIN)

CD player Section

Laser	Semiconductor laser
Wavelength	780 - 790 nm
Frequency response	2 Hz to 20 kHz ± 0.5 dB
Signal-to-noise ratio	More than 93 dB
Dynamic range	More than 90 dB
Harmonic distortion	Less than 0.008% (1 kHz)
Channel separation	More than 90 dB (1 kHz)

General

Power requirements	Except UK model : 220 - 230 V AC, 50/60 Hz
Power consumption	UK model : 240 V AC, 50Hz Except UK model : 150 W
	UK model : 130 W
Mass	Approx. 11.3 kg (24 lb 15 oz)
Dimensions	Approx. 355 x 425 x 355 mm (14 x 16 $\frac{1}{4}$ x 14 inches) (w/h/d, including projections)

Supplied accessories

45-r/min adaptor	(1)
Remote commander RM-S421	(1)
FM wire antenna	(1)
(Except G model)	
AM loop antenna	(1)
Batteries Sony SUM-3 (NS)	(2)

Note

EE : East European model
G : German model
IT : Italian model

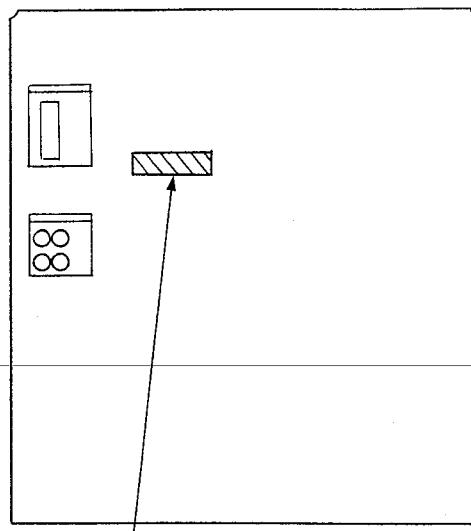
Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
"DOLBY" and the double-D symbol  are trademarks of Dolby Laboratories Licensing Corporation.

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

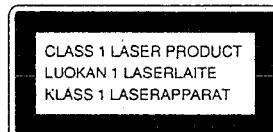
Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270 °C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

MODEL IDENTIFICATION**— BACK PANEL —**

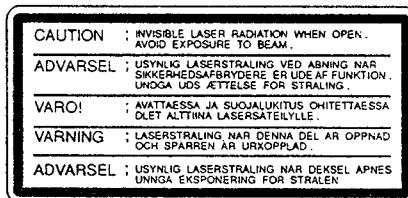
- 4-642-744-11 : AEP Model
4-642-744-21 : AEP Model
4-642-744-31 : AEP Model
4-642-744-41 : German Model
4-642-744-51 : Italian Model
4-642-744-61 : East European, CIS Model
4-642-744-71 : UK Model
4-642-744-81 : AEP Model

This appliance is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT MARKING is located on the rear exterior.



Laser component in this product is capable of emitting radiation exceeding the limit for Class 1.

The following caution label is located inside the unit.

**SAFETY-RELATED COMPONENT WARNING!!**

COMPONENTS IDENTIFIED BY MARK  OR DOTTED LINE WITH MARK  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

SECTION 1

SERVICING NOTE

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NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic break-down because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.

During repair, pay attention to electrostatic break-down and also use the procedure in the printed matter which is included in the repair parts.

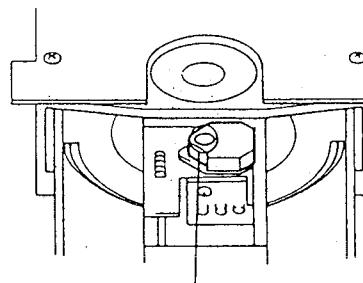
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

LASER DIODE AND FOCUS SEARCH OPERATION CHECK

1. Make POWER switch on with no disc inserted and disc table closed.
2. Confirm that the following operation is performed while observing the objective lens.

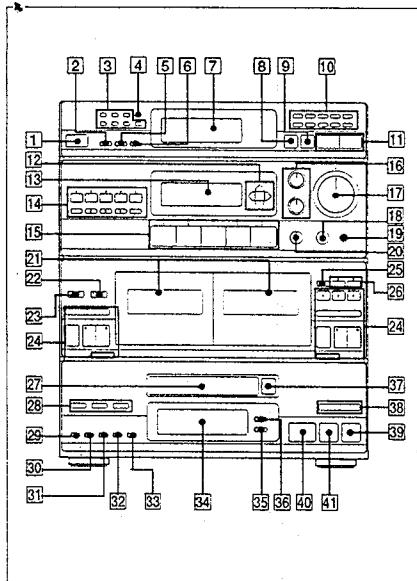


① Confirm that laser beam is spread.

② Up and down motion of the objective lens. (3 times)

Location of Controls

Refer to the pages indicated in parentheses for details.



Compact Disc Deck Receiver HCD-A490

Tuner section

- 1 SYSTEM POWER switch (Page 5)
- 2 MEMORY button (Page 10)
- 3 Buttons for setting the clock and timer (Pages 6, 28, 29, 30)
- 4 DISPLAY button (Pages 11)
- 5 CHARACTER button (Page 11)
- 6 STEREO/MONO button (Page 9)
- 7 Display window
- 8 BAND button (Page 9)
- 9 SHIFT button (Page 10)
- 10 PRESET STATIONS numeric buttons (Pages 10, 11)
- 11 DUAL MODE TUNING +/- buttons (Pages 6, 9, 10, 11, 28, 29)

Amplifier section

- 12 CURSOR CONTROL buttons (Page 25)
- 13 SPECTRUM ANALYZER display (Page 26)
- 14 PRESET EQ/PERSONAL FILE buttons and indicators (Pages 24, 25, 26)
- 15 Function selectors and indicators
- 16 DBS LEVEL and DBS FREQUENCY controls (Page 7)
- 17 VOLUME control (Page 7)
- 18 BALANCE control (Page 7)
- 19 HEADPHONES jack (Page 7)
- 20 SURROUND control (Page 7)

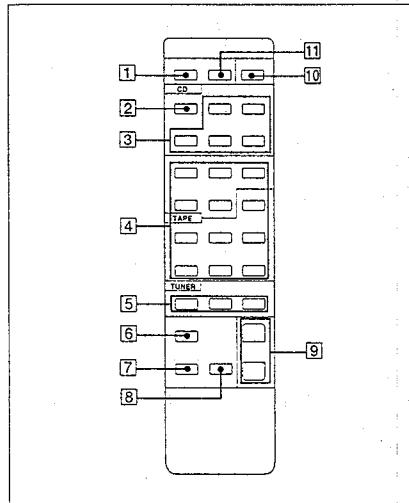
Cassette deck section

- 21 Cassette holders
- 22 DIRECTION MODE selector (Pages 12, 14, 16)
- 23 DOLBY NR (noise reduction) switch (Pages 12, 14)
- 24 Tape operation buttons (Pages 12, 14, 15)
 - ◀◀ (AMS*) Leftward fast winding button
 - ▶▶ (AMS*) Rightward fast winding button
 - ▶ Forward play button and indicator
 - ◀ Reverse play button and indicator
 - Stop button
 - ▲ EJECT button
 - PAUSE button and indicator (deck B only)
 - REC Record button and indicator (deck B only)
 - REC MUTE button (deck B only)
- 25 CD SYNCHRO button (Page 21)
- 26 DUBBING SPEED (HIGH/NORMAL) buttons and indicators (Page 16)

Compact disc player section

- 27 Disc Tray
- 28 PLAY MODE buttons
 - CONTINUE button (Pages 19, 20, 23)
 - SHUFFLE button (Page 19)
 - PROGRAM button (Page 20, 22)
- 29 TIME button (Pages 17, 22)
- 30 REPEAT button (Page 19)
- 31 FADE button (Page 24)
- 32 MUSIC SCAN button (Page 17)
- 33 EDIT button (Page 23)
- 34 Display window
- 35 CLEAR (program clear) button (Page 20)
- 36 CHECK (program check) button (Page 20)
- 37 ▲ OPEN/CLOSE button (Page 17)
- 38 ▶◀/◀◀/▶▶/▶▶ (AMS*) buttons (Page 18)
- 39 ■ (stop) button (Page 17)
- 40 ▶ (play) button (Page 17)
- 41 ■ (pause) button (Page 17)

* AMS is the abbreviation of Automatic Music Sensor.



Remote commander RM-S421

- 1 FUNCTION button
Each time this button is pressed, the function mode changes among VIDEO, TAPE, CD, TUNER and PHONO.
- 2 This button is inoperative with this unit.
- 3 CD operation buttons
◀◀ / ▶▶ (AMS*) buttons, ▶ (play) button, ■ (pause) button, □ (stop) button
- 4 TAPE DECK A and DECK B operation buttons
◀◀ / ▶▶ (AMS*) buttons,
◀ / ▶ Play buttons,
■ Stop buttons
DECK B only
● Recording button,
■ Pause button
- 5 Tuner operation buttons
SHIFT button
PRESET +/- buttons
These buttons are used to select the preset station number.
- 6 EQUALIZER button
- 7 SELECT 5 button
Each time the button is pressed, the preset equalization switches among 5 preset patterns (HALL, DANCE, VOCAL, POP and BGM).
- 8 P.FILE button
- 9 VOL (volume) +/- buttons
- 10 SYSTEM POWER button
- 11 SLEEP button

* AMS is the abbreviation of Automatic Music Sensor.

SECTION 2 GENERAL

This section is extracted from
instruction manual.

SECTION 3

MECHANICAL ADJUSTMENTS

PRECAUTION

1. Clean the following parts with a denatured alcoholmoistened swab:

record/playback head	pinch roller
erase head	rubber belt
capstan	idler
2. Demagnetize the record/playback head with a head demagnetizer.
(Head demagnetizer do not approach for the erase head.)
3. Do not use a magnetized screwdriver for the adjustment.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustment should be performed with the rated power supply voltage unless otherwise noted.

[Torque Measurement]

Torque	Torque Meter	Meter Reading
FWD	CQ-102C	30 to 65 g·cm 0.42 – 0.9 oz·inch
FWD Back Tension	CQ-102C	1 to 6 g·cm 0.014 – 0.08 oz·inch
REV	CQ-102RC	30 to 65 g·cm 0.42 – 0.9 oz·inch
REV Back Tension	CQ-102RC	1 to 6 g·cm 0.014 – 0.08 oz·inch
FF, REV	CQ-201B	70 to 120 g·cm 0.97 – 1.65 oz·inch

SECTION 4

ELECTRICAL ADJUSTMENTS

DECK SECTION

1. The adjustment should be performed in the publication.
(Be sure to make playback adjustment at first.)
2. The adjustment and measurement should be performed for both L-CH and R-CH.
 - Switch position
DOLBY NR switch: OFF

Test tape

Tape	Contents	Used for
P-4-A100	10kHz, -10dB	Head Azimuth Adjustment
P-4-L300	315Hz, 0dB	Level Adjustment
WS-48B	3kHz, 0dB	Tape Speed Adjustment

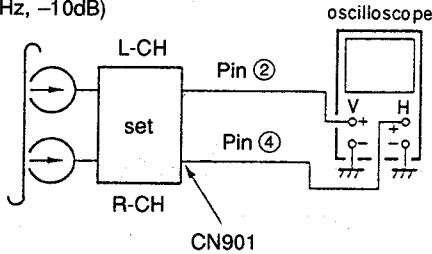
[Record/playback Head Azimuth Adjustment]

Deck A **Deck B**

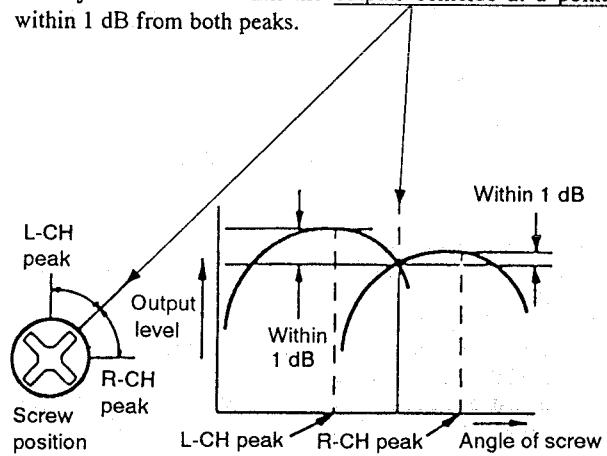
Procedure:

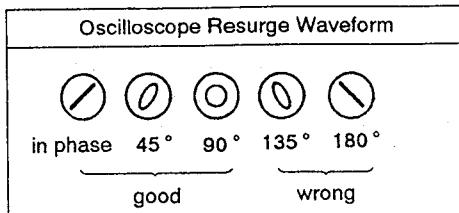
1. FWD/REV: Playback mode

test tape
P-4-A100
(10kHz, -10dB)



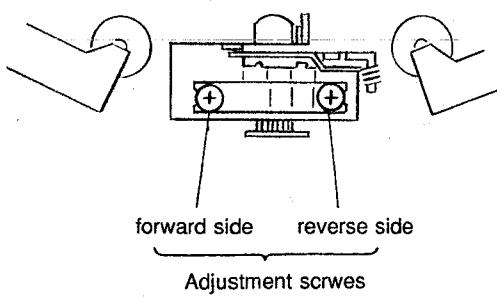
2. Turn the adjustment screw and check where the output peaks are. If the peaks of L-CH and R-CH do not coincide, turn the adjustment screw until the outputs coincide at a point within 1 dB from both peaks.





3. Change the REV playback mode and repeat the steps 1 to 2.
4. After the adjustment, lock the adjustment screw with suitable locking compound.

Adjustment Location: Record/playback head

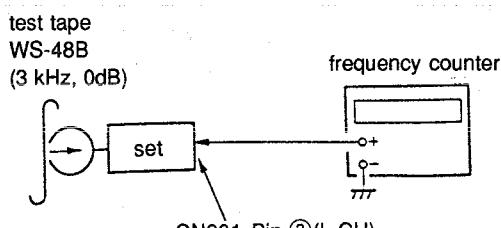


[Tape Speed Adjustment] Deck A Deck B

Procedure:

- Adjust the high speed first, starting from Deck A and then Deck B.

— Playback Mode —



(High Speed Adjustment)

1. Short-circuit CN904 (MAIN TC BOARD) with the power off.
2. Set deck A into the FWD mode.
3. Turn on the power, press the High speed DUB switch, and set high speed playback.
4. Adjust deck A : RV72A (H) so that the reading of the frequency counter becomes the specified value.
5. Stop deck A.
6. Carry out steps 2 to 5 for deck B in the same way.
7. After adjusting, unshort-circuit CN904.

(Normal Speed Adjustment)

1. Set the FWD playback mode.
2. Adjust deck A: RV71A (L), deck B: RV71B (L) so that the reading of the frequency counter becomes the the adjustment value.

Adjustment Values:

High Speed	6000 ± 30Hz
Normal Speed	3000 ± 15Hz

Adjust so that the difference between tape top and tape end is within 3%. Adjust so that the deviation between the speeds of deck A and deck B at the tape top is within 1.0%.

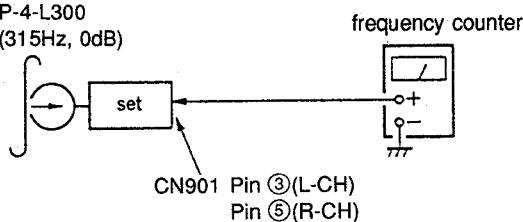
Adjustment Location: MD-A, B boards

[Playback Level Adjustment] Deck A Deck B

Procedure:

— Playback Mode —

Test tape
P-4-L300
(315Hz, 0dB)



Adjust deck A: RV11A (L-CH), RV21A (R-CH), deck B: RV11B (L-CH), RV21B (R-CH) so that the output level is within the adjustment values specified.

Adjustment Level:

CN901 level: -7.5 dB ± 0.5 dB (0.31 to 0.35V)

Level Difference between Channels:

Within 1.0 dB

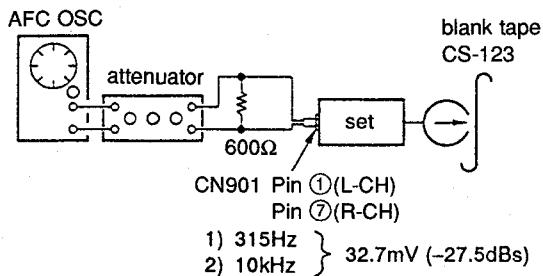
Check that the playback level does not change when playback and stop is repeated.

Adjustment Location: MD-A, B boards

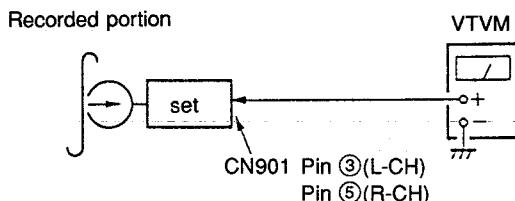
【Record Bias Adjustment】 Deck B

Procedure:

1. Record Mode



2. Playback Mode



Playback the signal recorded at step 1, and check that the adjustment value specified below is satisfied. If it is not, adjust RV12 (L-CH) and RV22 (R-CH), and repeat steps 1 and 2.

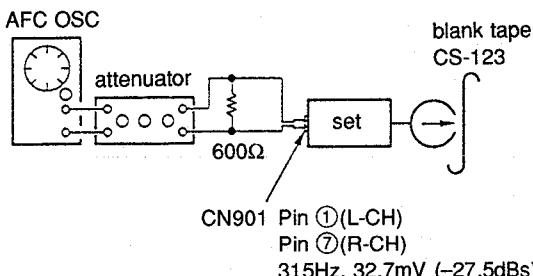
Adjustment Level: Playback output of 315 Hz to playback output of 10 kHz: -0.5 dBs to 0.5 dBs.

Adjustment Location: MD-B board

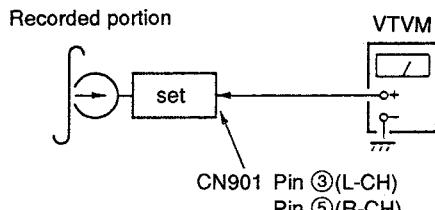
【Record Level Adjustment】 Deck B

Procedure:

1. Record Mode



2. Playback Mode



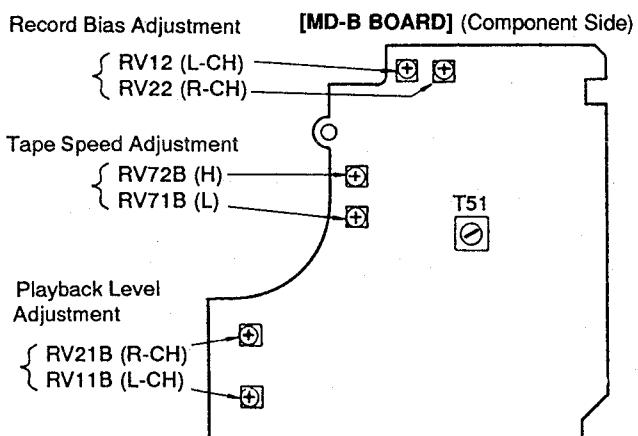
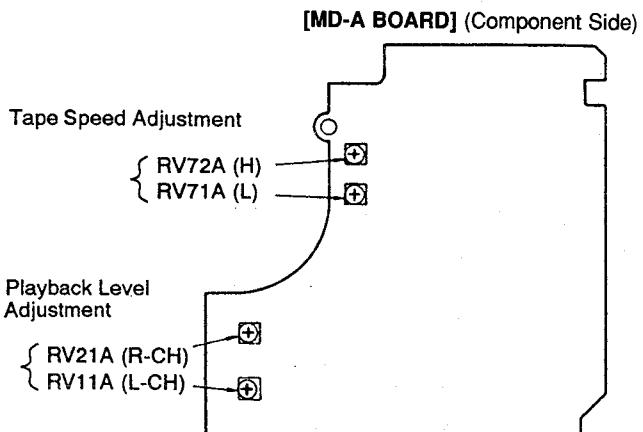
Playback the signal recorded at step 1, and check that the adjustment value specified below is satisfied. If it is not, adjust RV701 (L-CH) and RV801 (R-CH), and steps 1 and 2.

Adjustment Level:

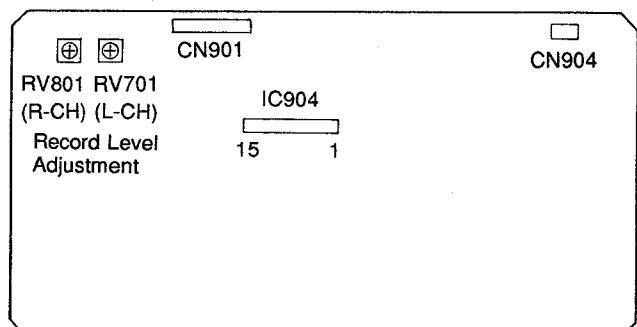
CN901 level: -27.0 dBs to -28.0 dBs (31 to 35 mV)

Adjustment Location: Main board

Adjustment Location:



[MAIN TC BOARD] (Component Side)

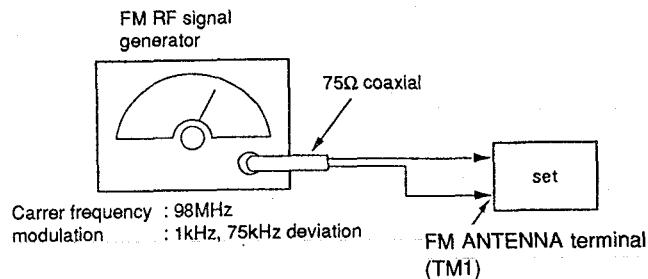


TUNER SECTION

Note : As a front-end (FE1) is difficult to repair if faulty, replace it with new one.

FM SECTION ADJUSTMENTS

Setting:



FM Tuned Level Adjustment

Band : FM

Procedure :

- Supply a $25 \pm 4\text{dB}\mu$ (EE, CIS), $30 \pm 4\text{dB}\mu$ (EXCEPT EE, CIS) 98MHz (EXCEPT EE, CIS), 70MHz (EE, CIS) signal from the ANTENNA terminal.
- Tune the set to 98MHz (EXCEPT EE, CIS), 70MHz (EE, CIS).
- Adjust RV2 so that the TUNED indicator goes on.

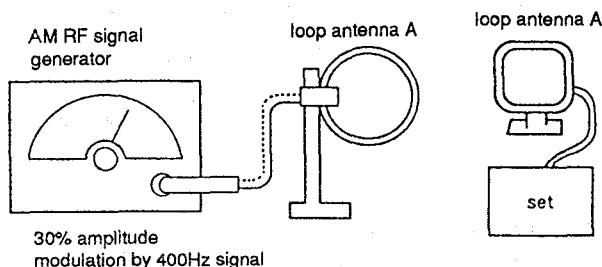
Adjustment Location: MAIN board

EE : East European model

- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by trimmer capacitors.

AM SECTION ADJUSTMENTS

Setting:



AM Tuned Level Adjustment

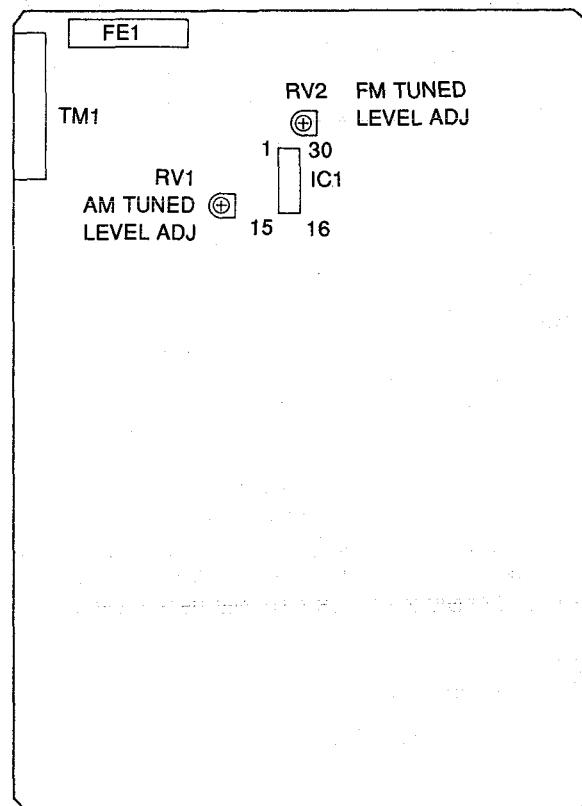
Band: AM

Procedure:

- Set loop antenna input level to $94\text{dB}\mu/\text{m}$, 1050kHz and no signal tuned light should not on.
- Tune the set to 1050kHz
- Adjust RV1 so that the Voltage of IC1 (7) pin is set to low.

Adjustment Location : MAIN BOARD

[MAIN BOARD] (Component Side)



SUBCARRIER ADJUSTMENT (CIS Model only)

SWITCH POSITION		Function Selector : TUNER Band Selector : FM STEREO/MONO : MONO			
SIGNAL GENERATOR		69 MHz, 60 dB, FM modulated (MONO SIGNAL)			
STEP	TEST STAGE	FM TUNING FREQUENCY	SIGNAL GENERATOR	ADJUSTMENT	REMARKS
1	fo	69 MHz	1 kHz (10 kHz dev.)		The value in this state should be 0 dB (Vo).
2			31.25 kHz (10 kHz dev.)	L1701	Adjust for maximal output.
3	Q			RV1701	Indication is +14 dB against Vo.

VCO FREQUENCY ADJUSTMENT

SWITCH POSITION		STEREO/MONO : STEREO			
SIGNAL GENERATOR		69 MHz, 60 dB, FM modulated (MONO SIGNAL)			
	FM TUNING FREQUENCY	ADJUSTMENT	REMARKS		
	69 MHz	RV1702	Adjust for 31.25kHz ± 50 Hz.		

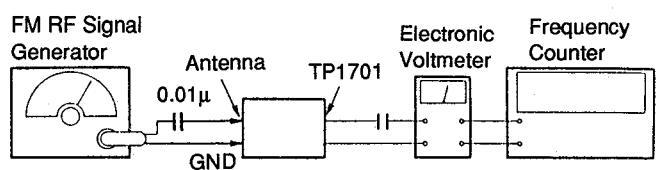


Fig. 1 SUBCARRIER

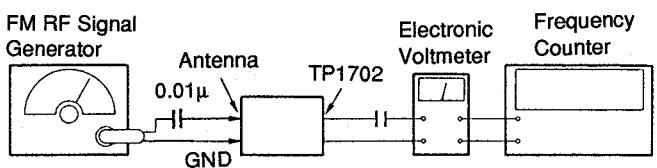
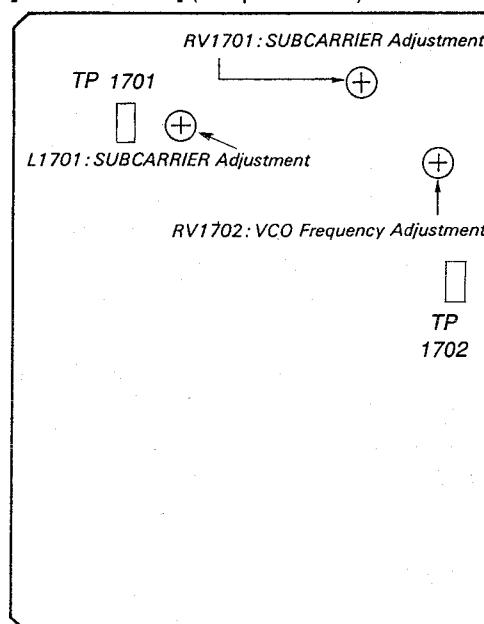


Fig. 2 VCO FREQUENCY

[POLAR BOARD] (Component Side)

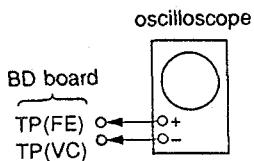


CD SECTION

Note :

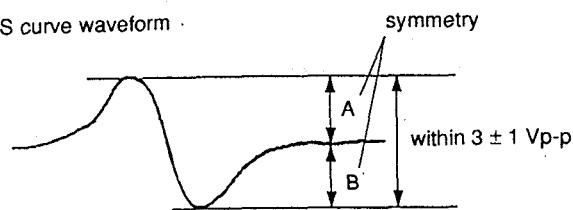
1. CD Block basically constructed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use the oscilloscope with more than $10M\Omega$ impedance.
4. Clean an object lens by an applicator with neutral detergent when the signal lever is low than specified value with the following checks.

S Curve Check



Procedure :

1. Connect oscilloscope to test point TP (FE) on BD board.
2. Connect between test point TP (FEI) and TP (VC) by lead wire.
3. Turned Power switch on.
4. Put disc (YEDS-18) in and turned Power switch on again and actuate the focus search. (actuate the focus search when disc table is moving in and out.)
5. Check the oscilloscope waveform (S-curve) is symmetrical between A and B. And confirm peak to peak level within 3 ± 1 Vp-p.

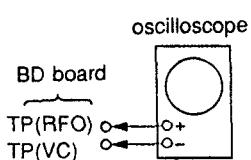


6. After check, remove the lead wire connected in step 2.

Note :

- Try to measure several times to make sure than the ratio of A : B or B : A is more than 10 : 7.
- Take sweep time as large as possible and light up the brightness to obtain best waveform.

RF Level Check



Procedure :

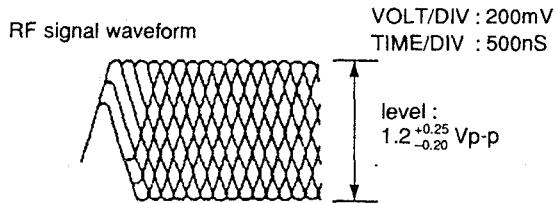
1. Connect oscilloscope to test point TP (RFO) on BD board.
2. Turned Power switch on.

3. Put disc (YEDS-18) in and playback.

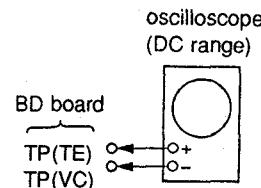
4. Confirm that oscilloscope waveform is clear and check RF signal level is correct or not.

Note :

Clear RF signal waveform means that the shape "◇" can be clearly distinguished at the center of the waveform.

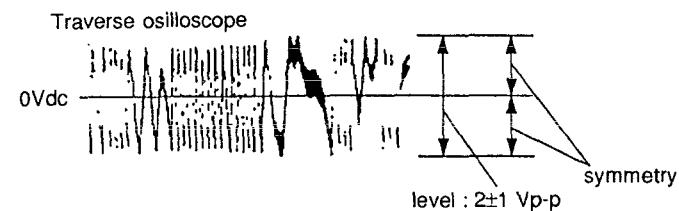


E-F Balance Check



Procedure :

1. Connect test point TP (ADJ) on MAIN board to ground and TP(TEI) to TP (VC) with lead wire.
2. Connect oscilloscope to test point TP (TE) on BD board.
3. Turned Power switch on.
4. Put disc (YEDS-18) in and playback.
5. Confirm that the oscilloscope waveform is symmetrical on the top and bottom in relation to 0Vdc, and check this level.

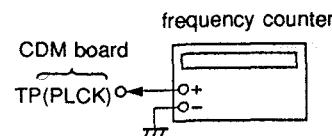


6. Remove the lead wire connected in step 1.

RF Free-run Frequency Check

Procedure :

1. Connect frequency counter to test point (PLCK) with lead wire.

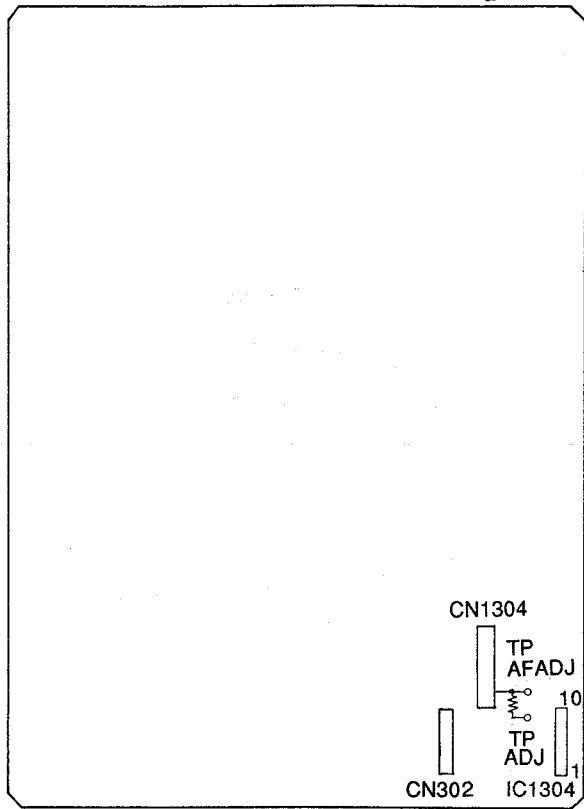


2. Turned Power switch on.

3. Confirm that reading on frequency counter is 4.3218MHz.

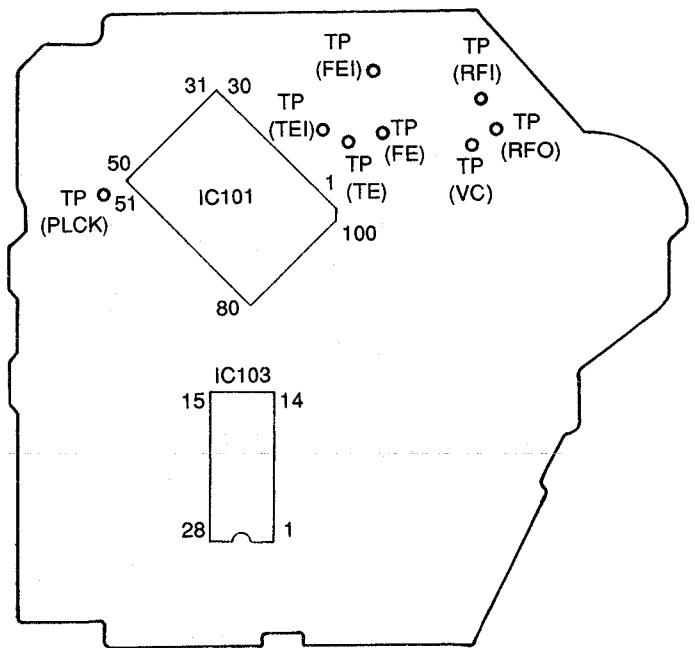
Adjustment Location :

[MAIN BOARD] (Component Side)



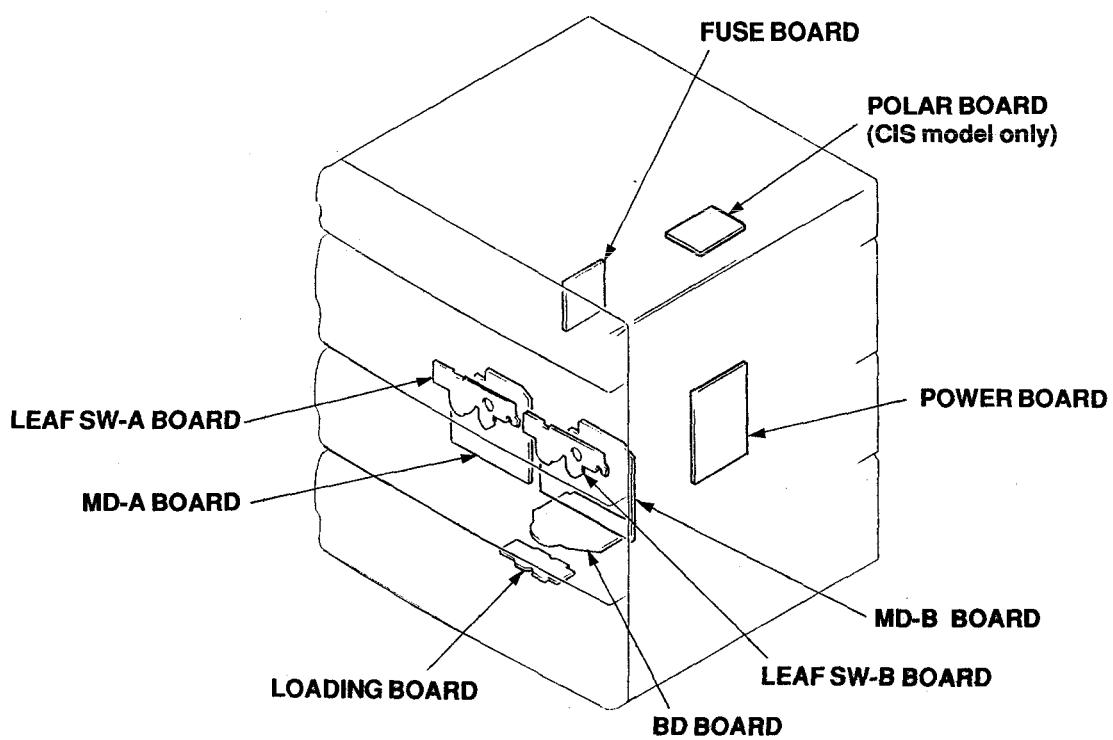
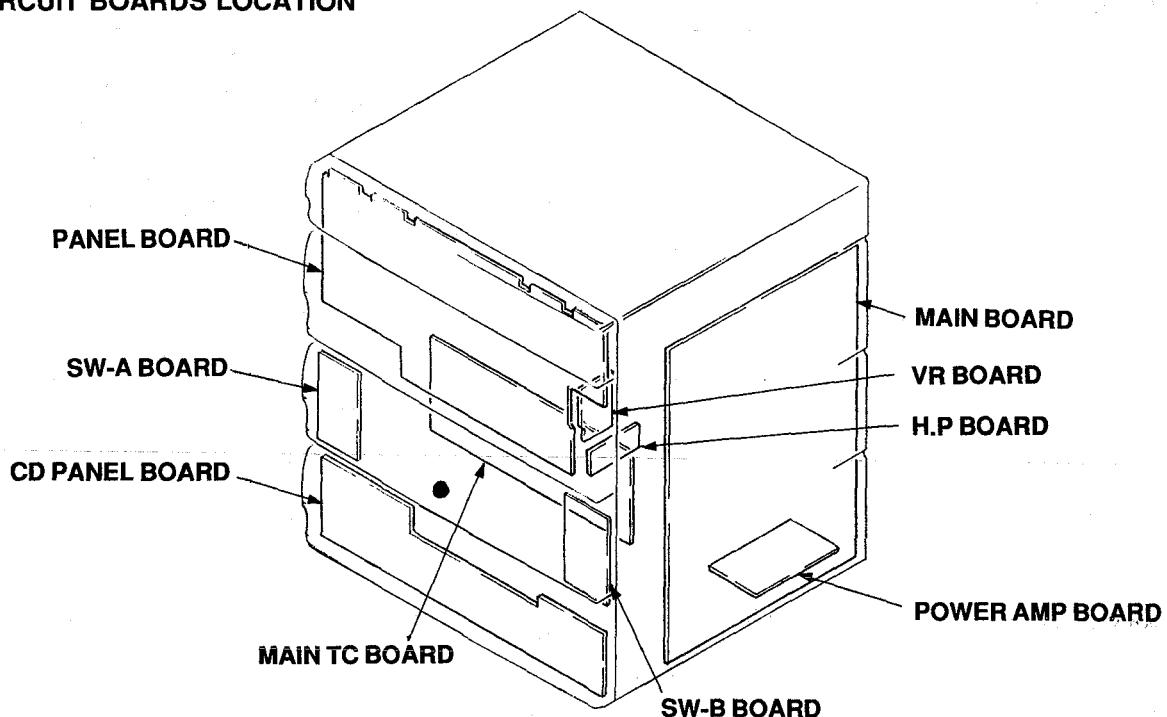
Adjustment Location :

[BD BOARD] — Side A —

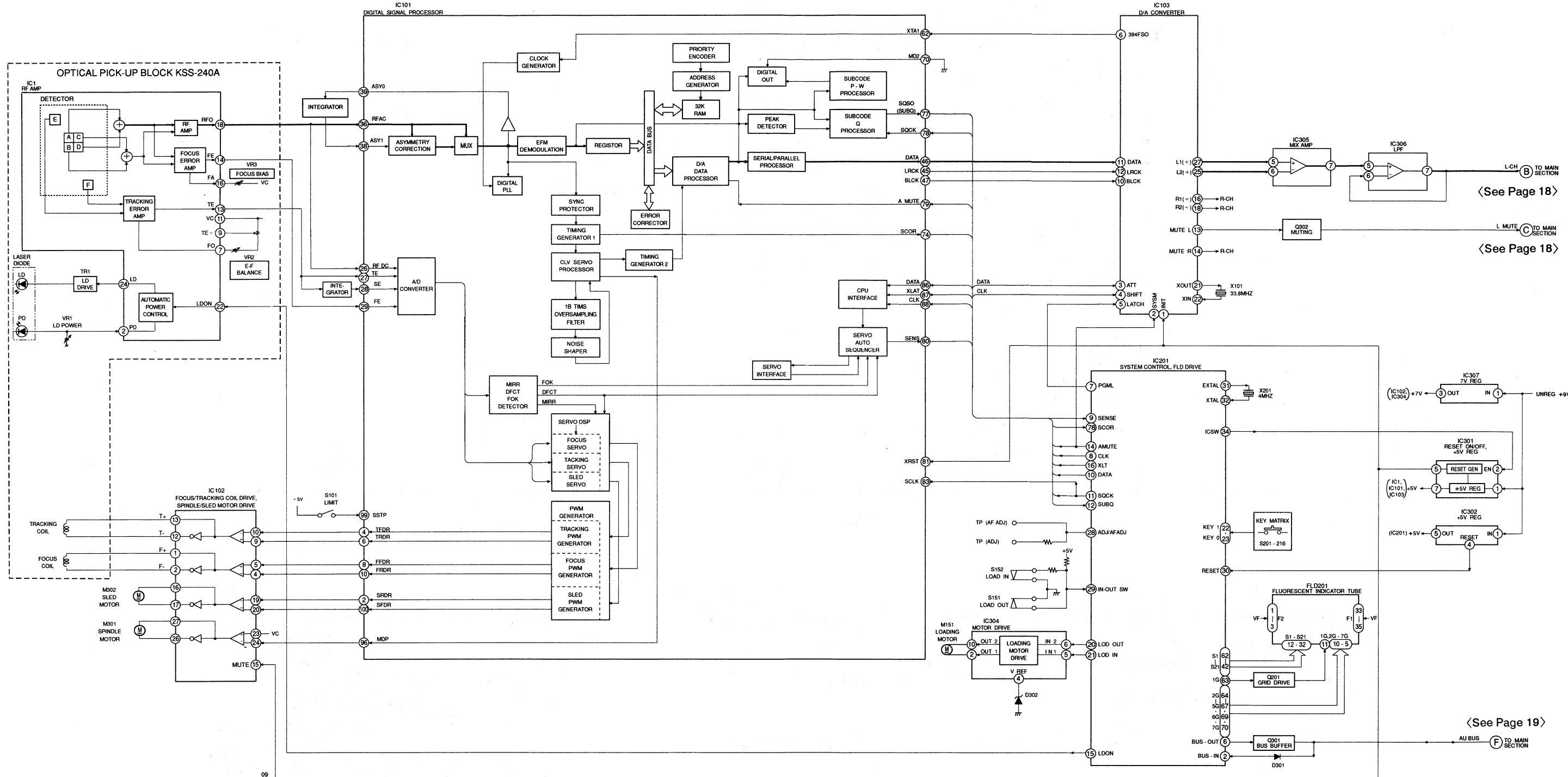


SECTION 5 DIAGRAMS

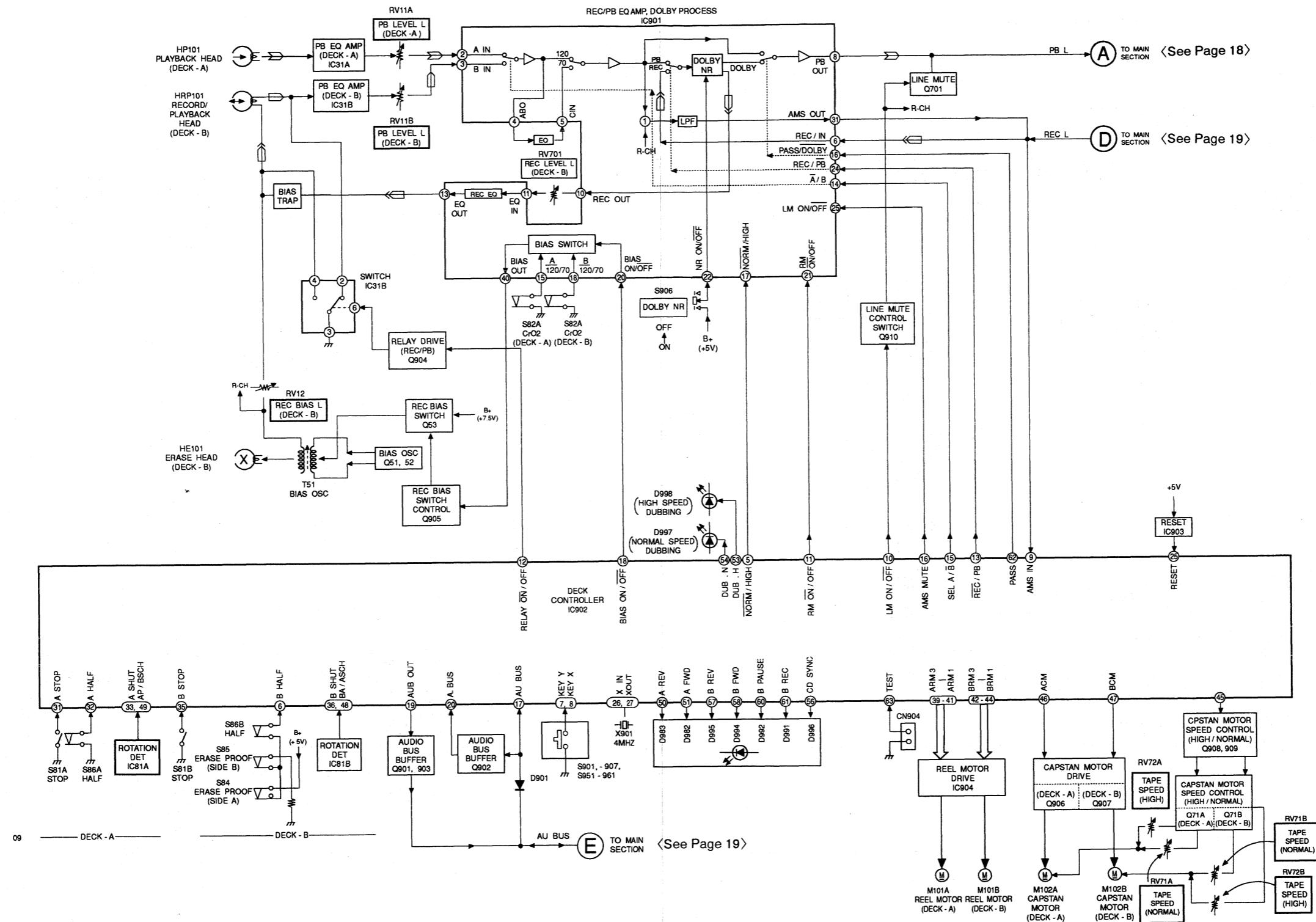
5-1. CIRCUIT BOARDS LOCATION



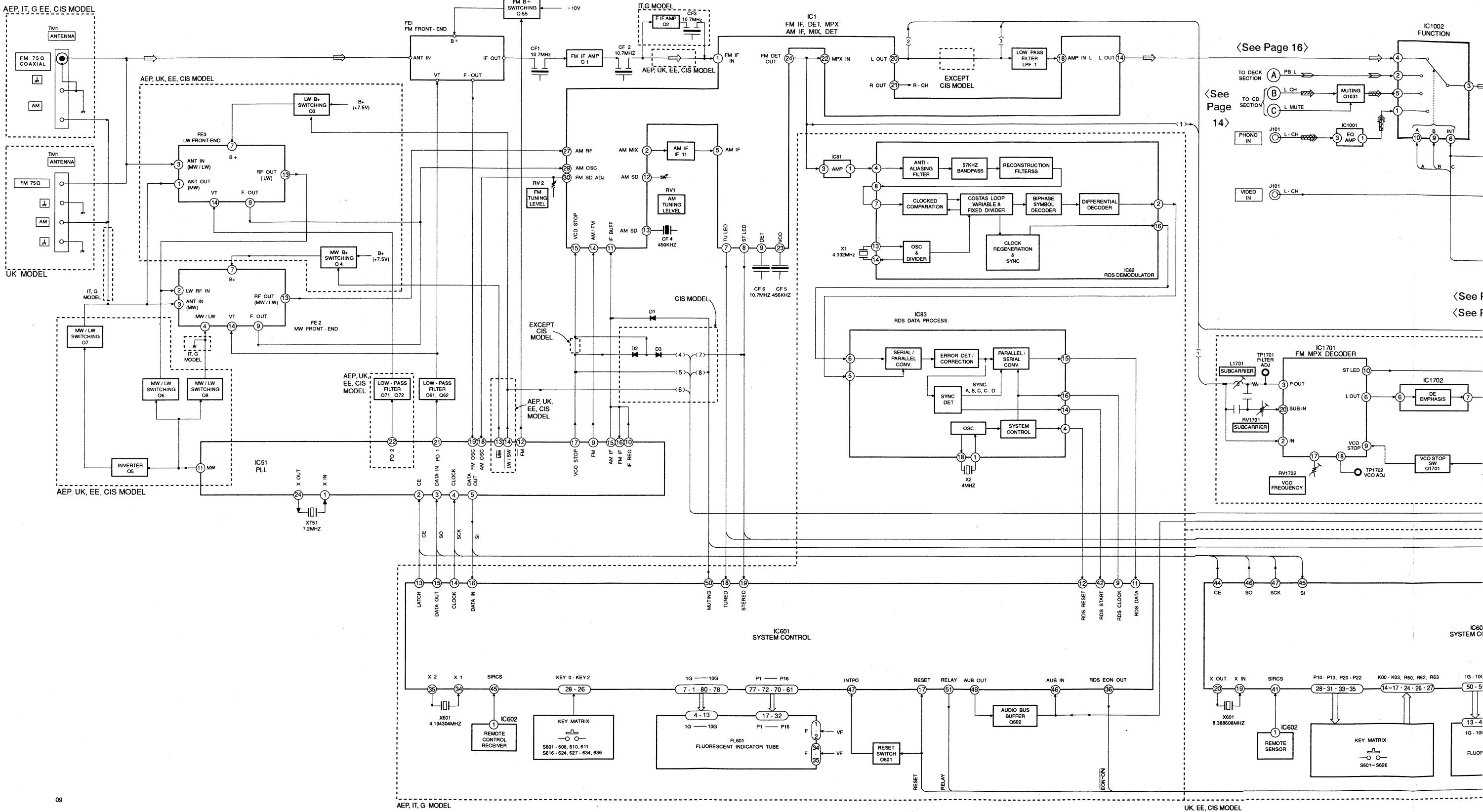
5-2. BLOCK DIAGRAMS
— CD SECTION —

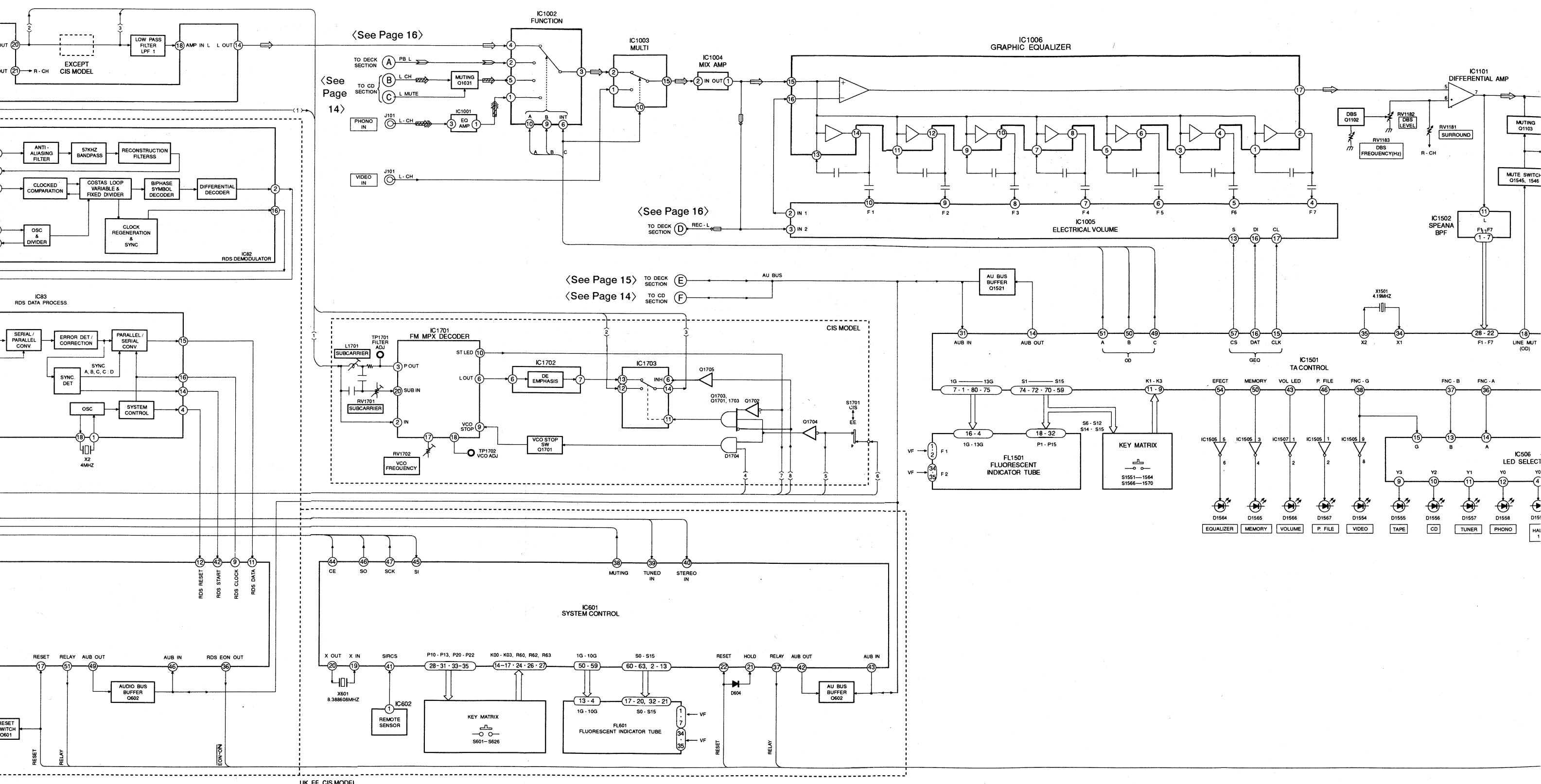


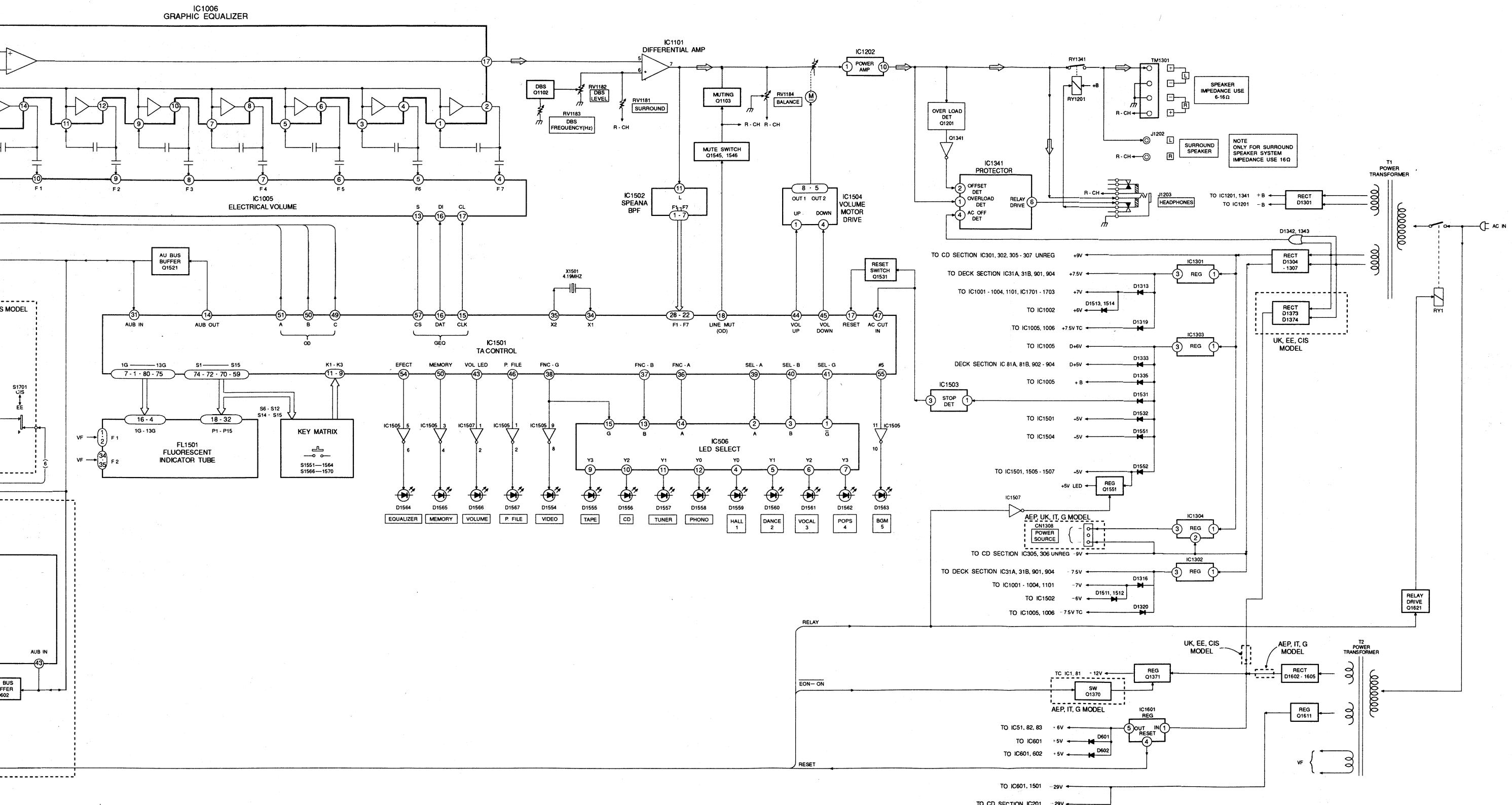
— DECK SECTION —



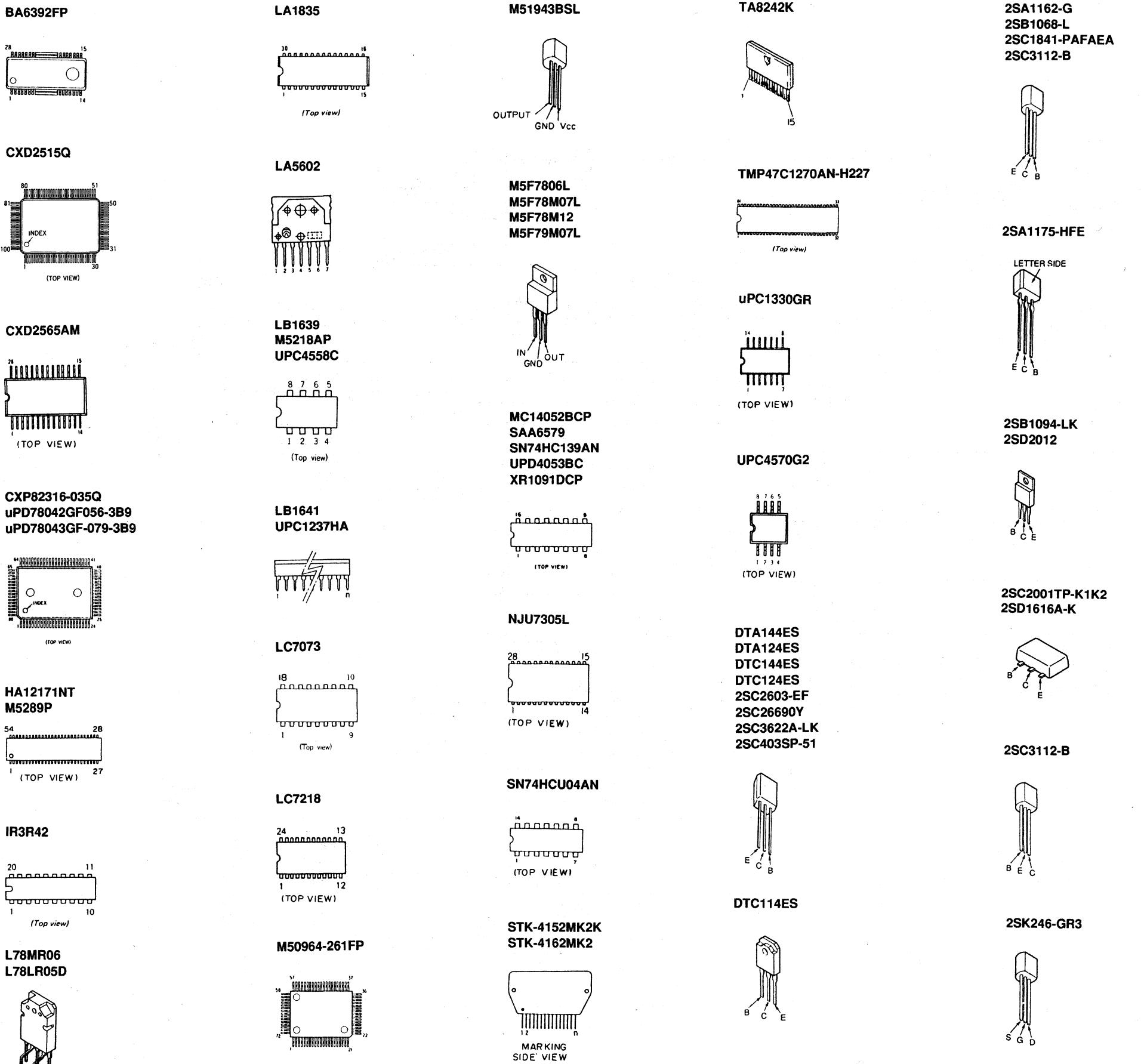
— MAIN SECTION —







5-3. SEMICONDUCTOR LEAD LAYOUTS

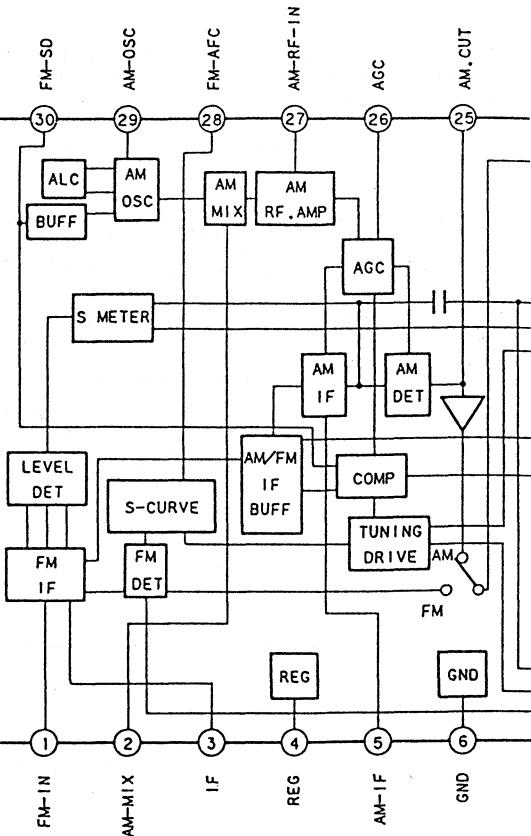


5-4. IC BLOCK DIAGRAMS

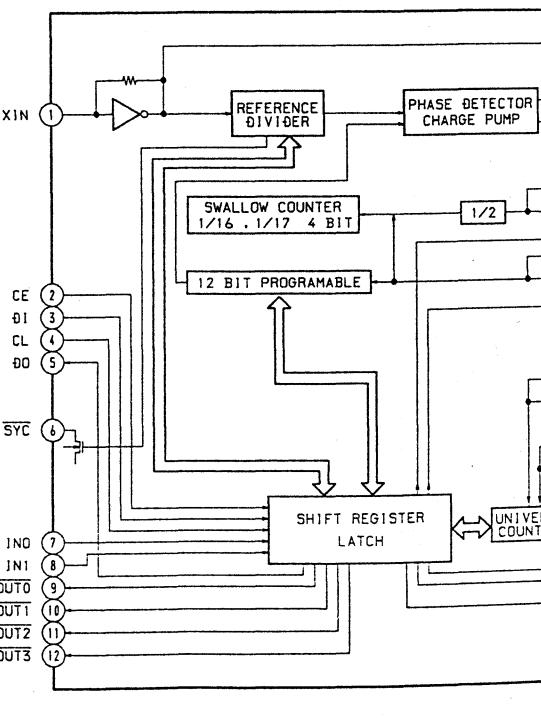
— TUNER SECTION —

- IC Block Diagrams.

IC1 LA1835



IC51 LC7218

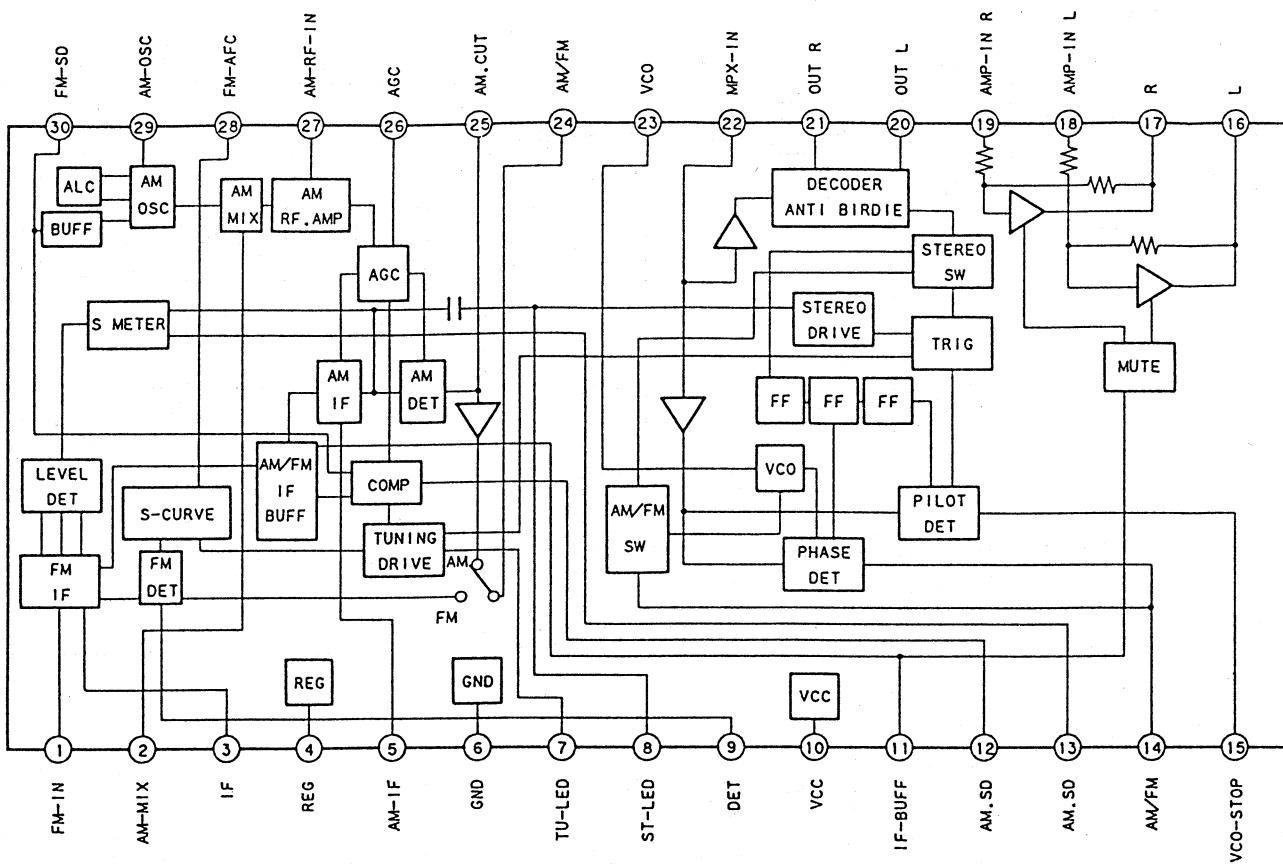


5-4. IC BLOCK DIAGRAMS

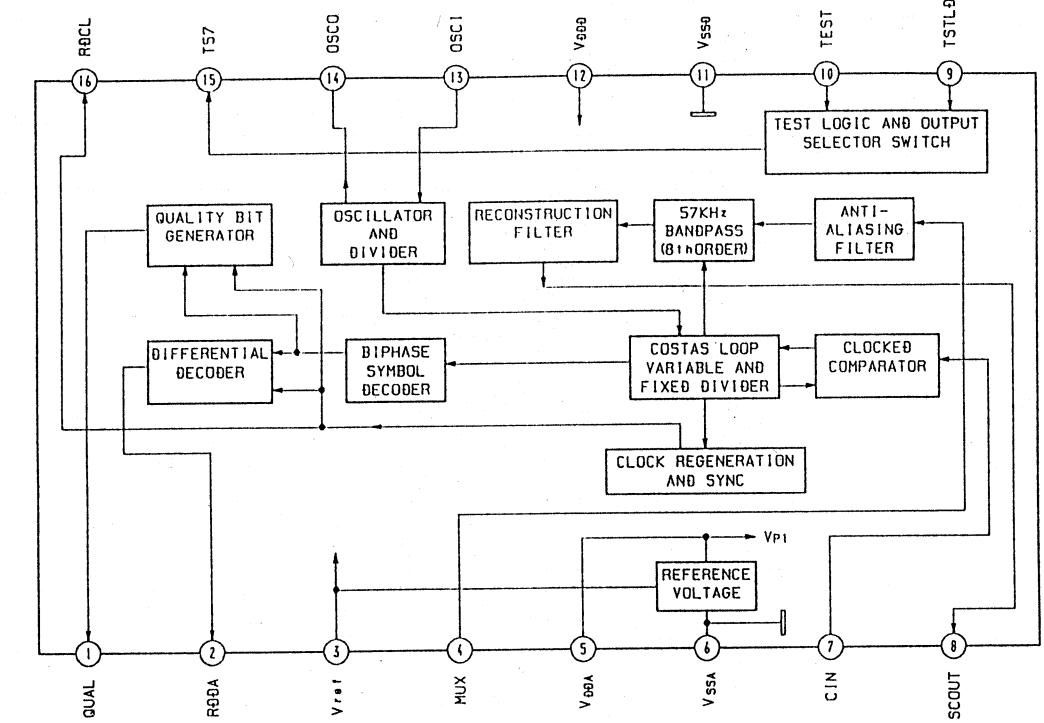
— TUNER SECTION —

• IC Block Diagrams.

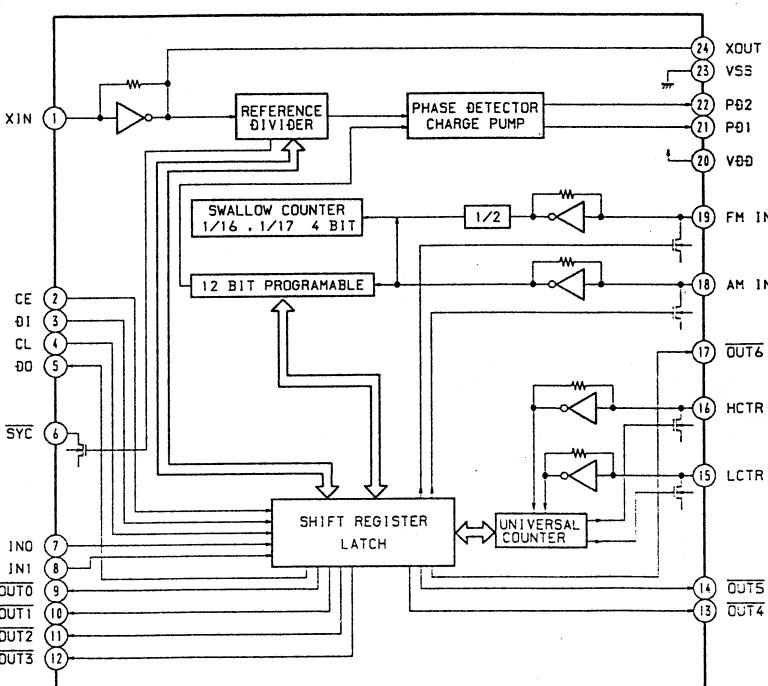
IC1 LA1835



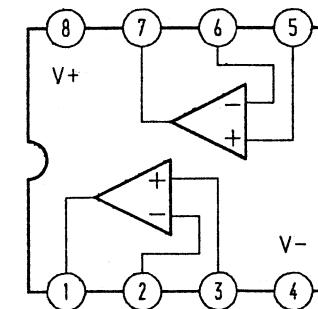
IC82 SAA6579



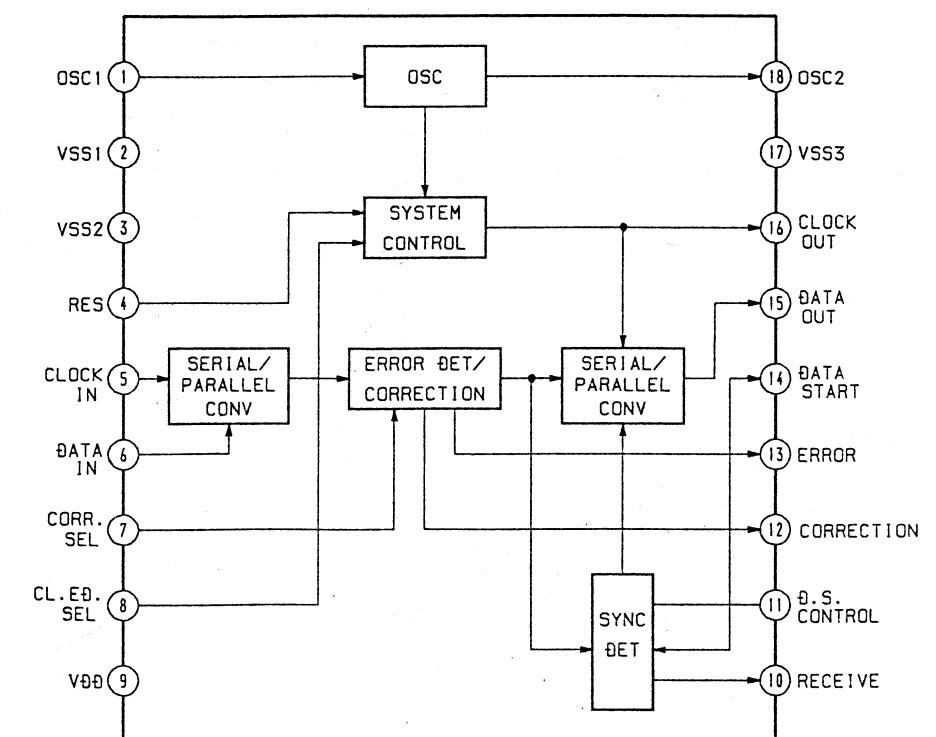
IC51 LC7218

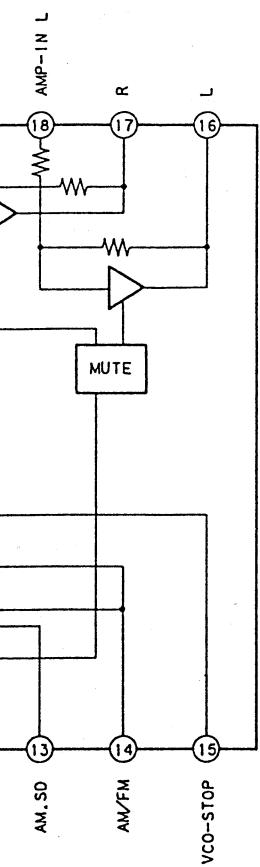


IC81 RC4558P



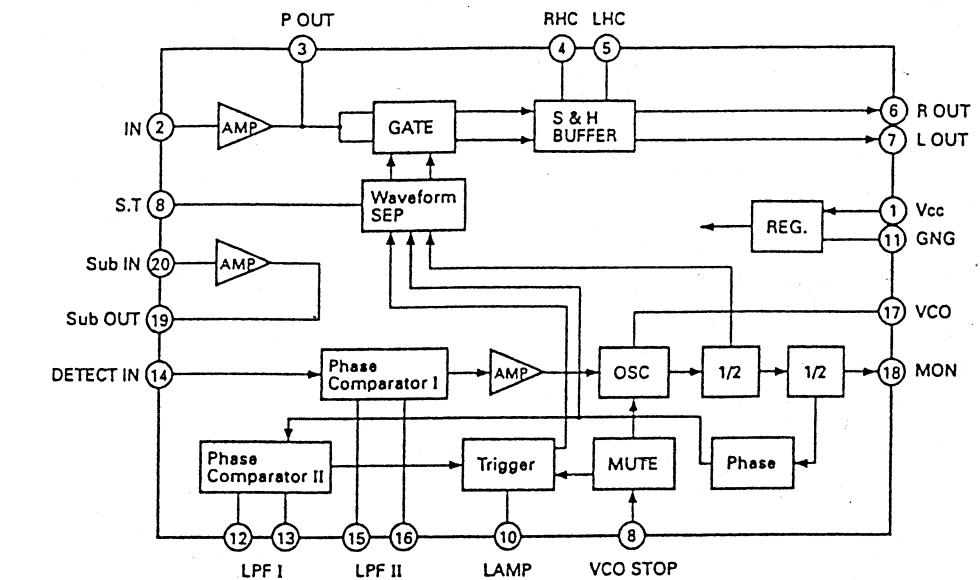
IC83 LC7073



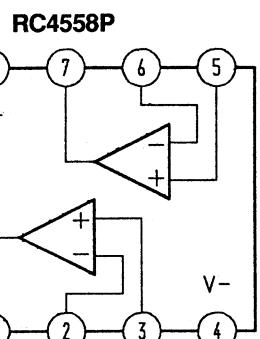


IC82 SAA6579

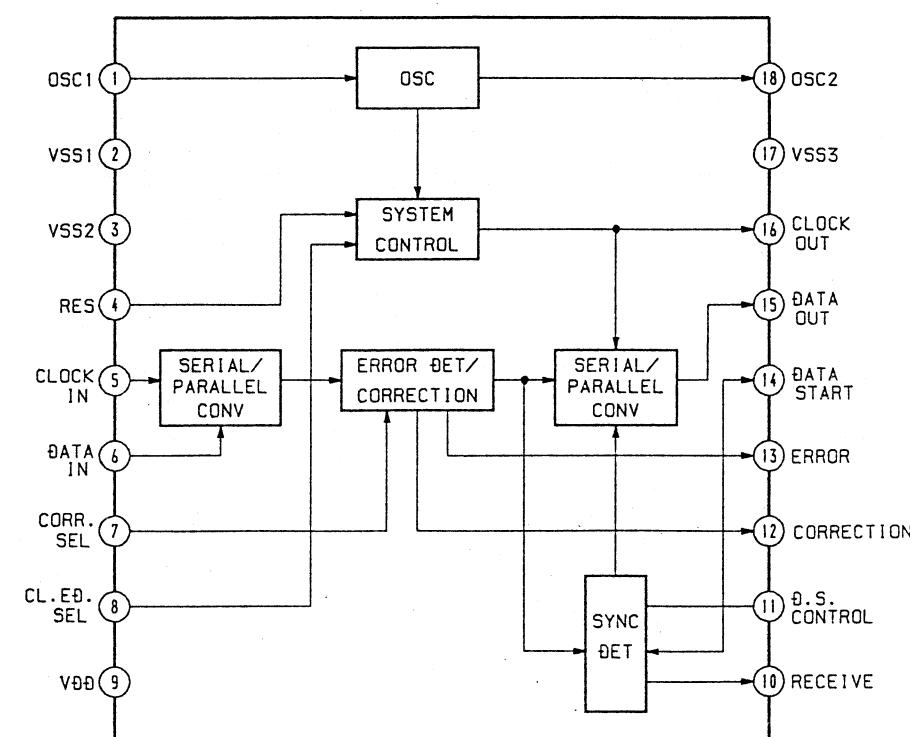
IC1701 IR3R42



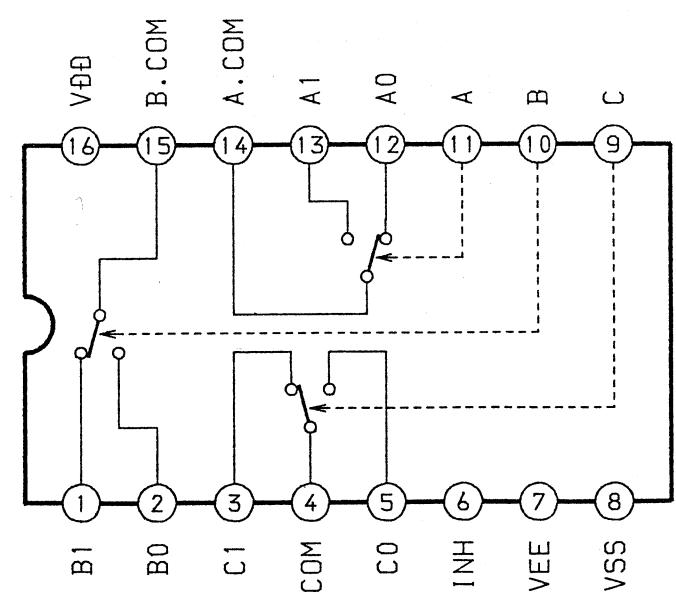
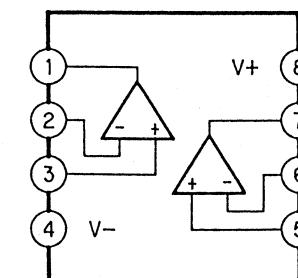
IC1703 MC14053BCP



IC83 LC7073

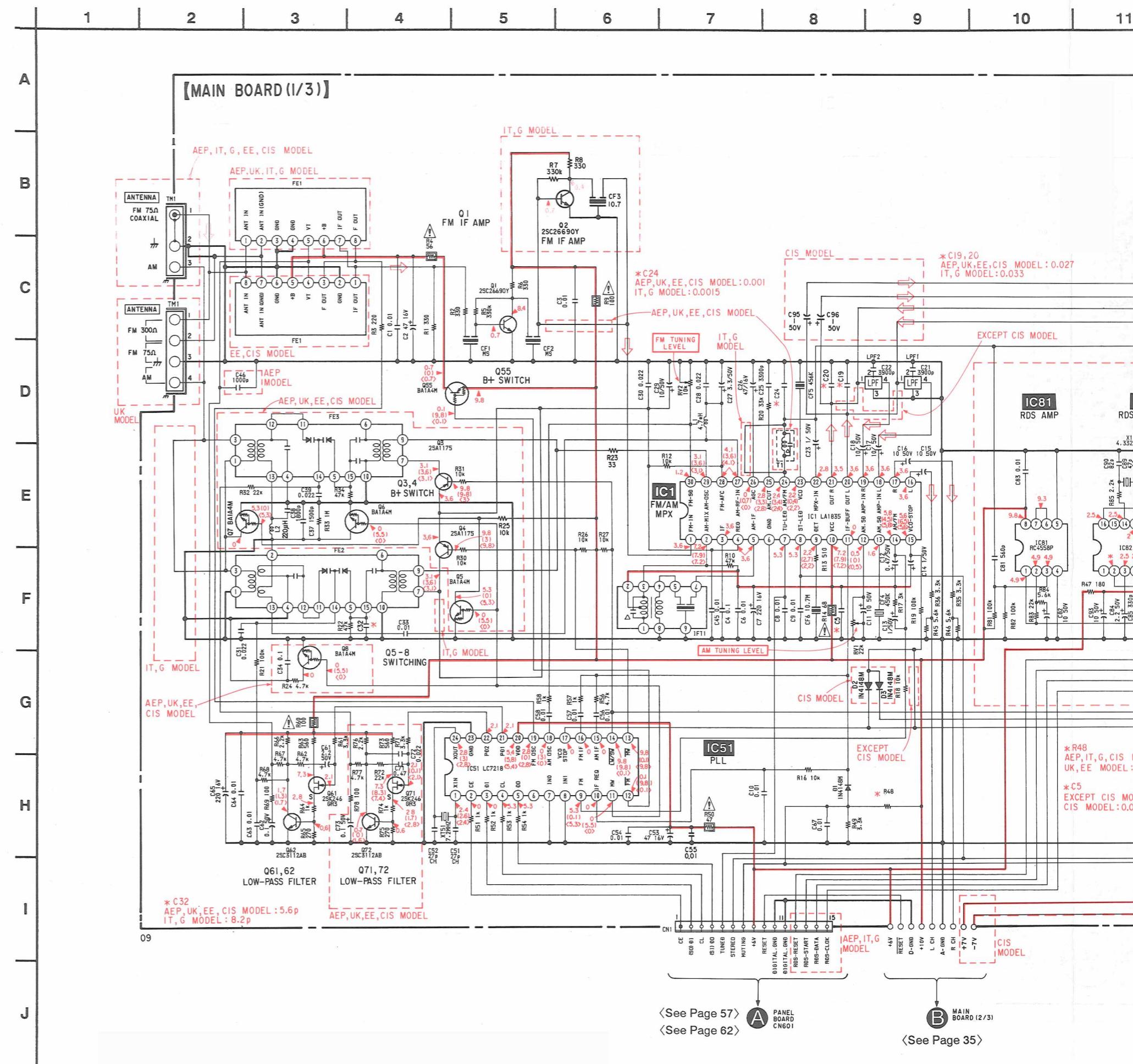


IC1702 M5218AP

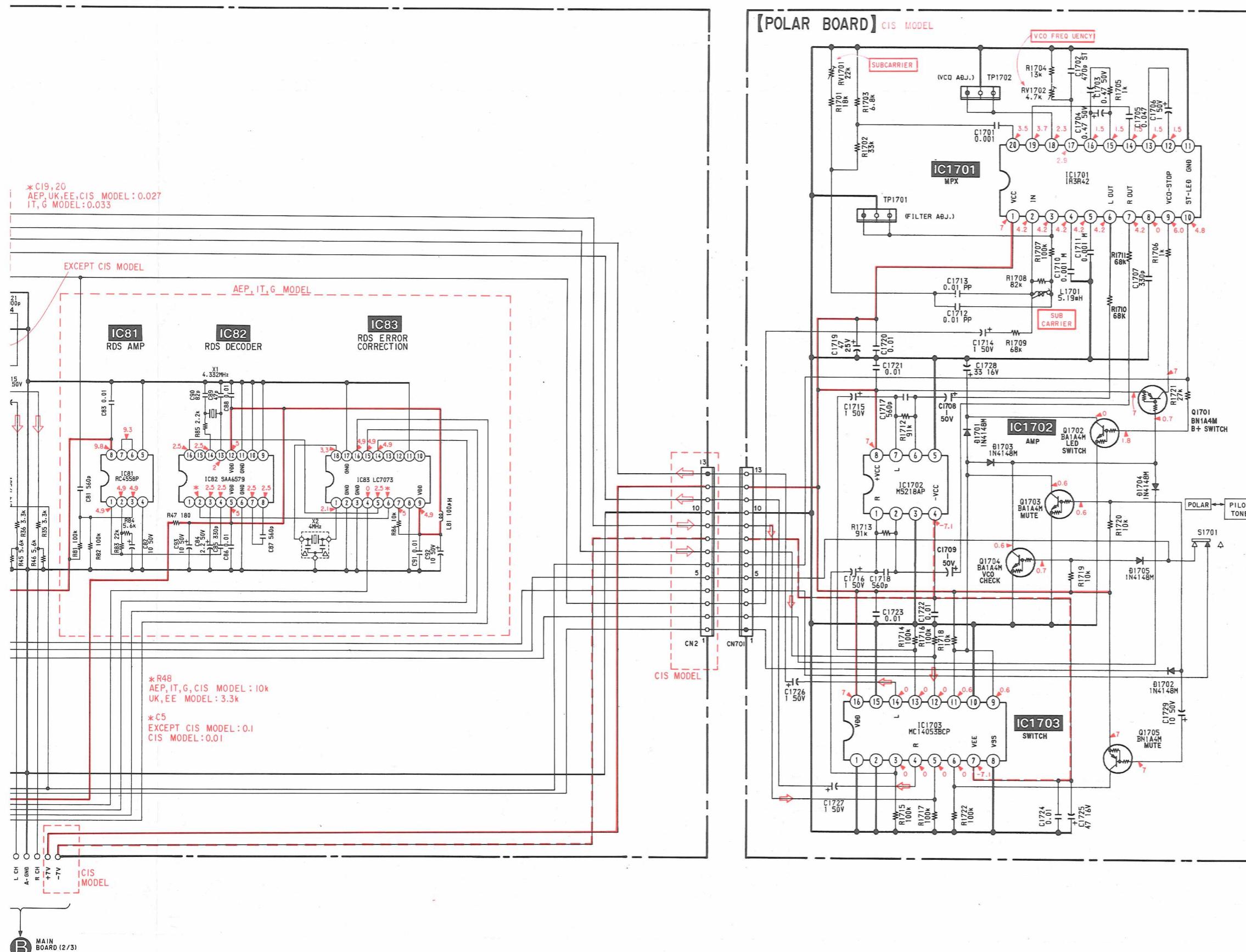


5-5. SCHEMATIC DIAGRAM — TUNER SECTION —

- Refer to page 31 for Printed Wiring Boards.
- See page 24 for IC Block Diagrams.

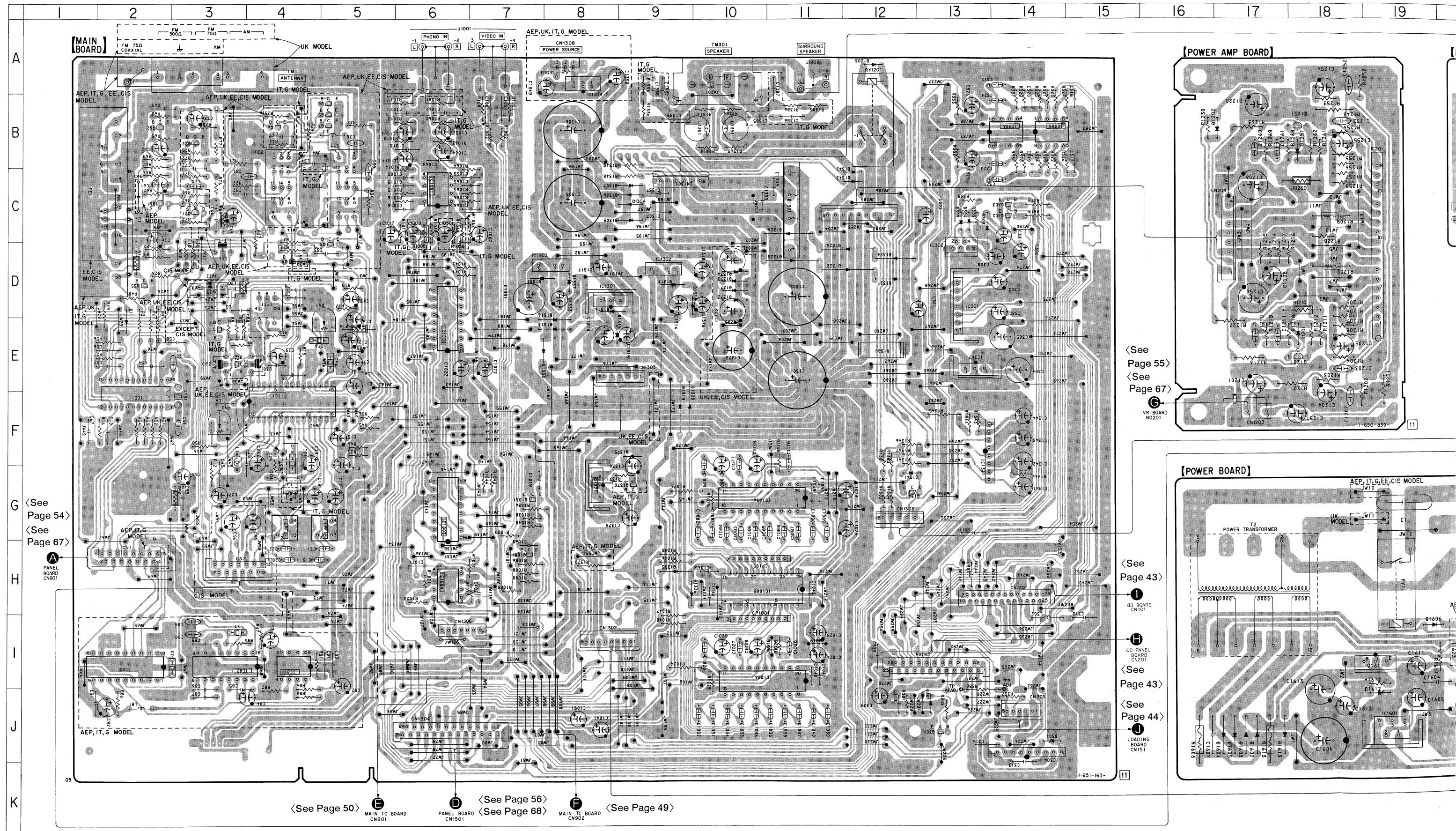


10 11 12 13 14 15 16 17 18 19 20 21

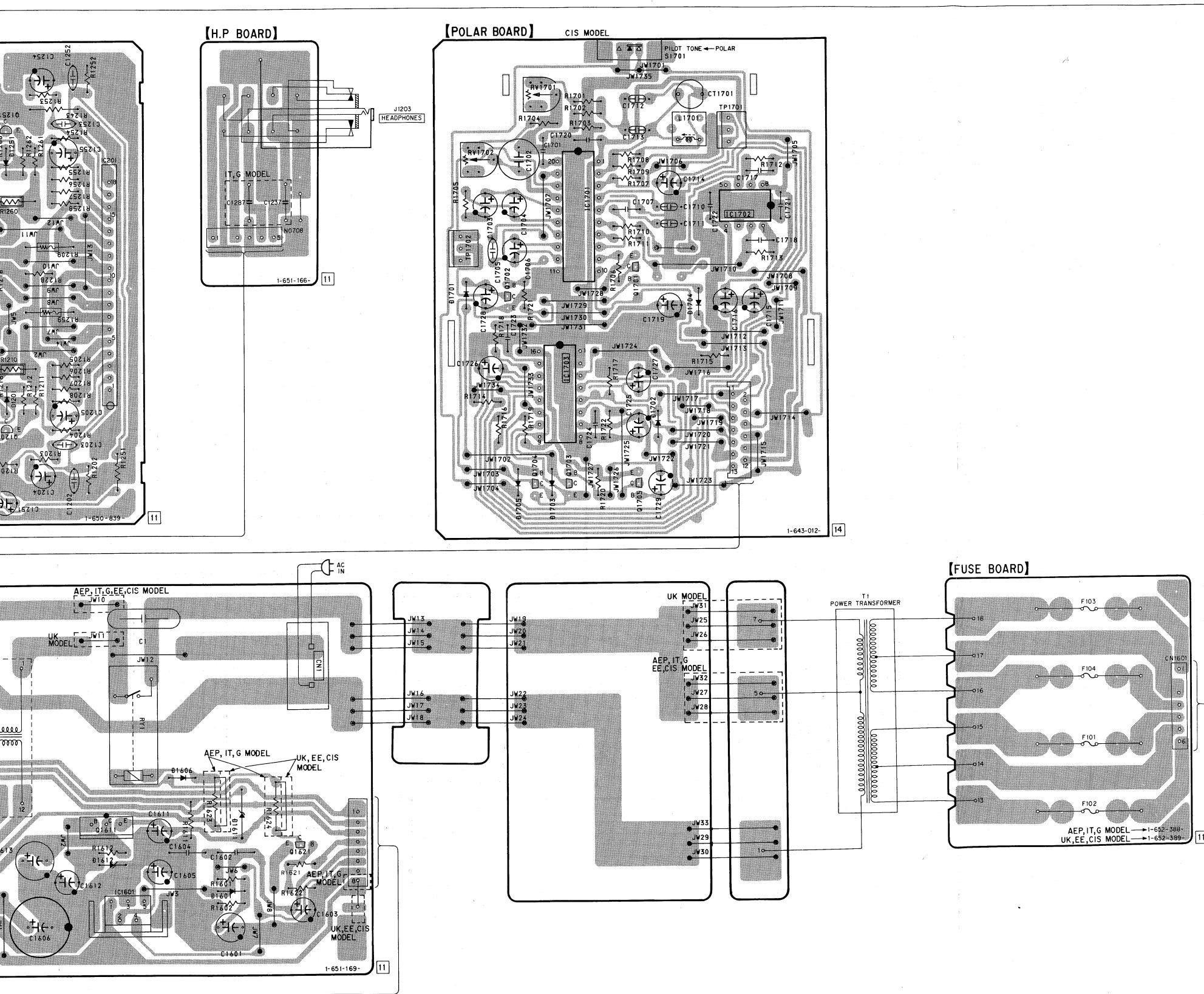


5-6. PRINTED WIRING BOARDS — MAIN SECTION —

- See page 12 for Circuit Boards Location.
 - See pages 22, 23 for Semiconductor Lead Layouts.



18 19 20 21 22 23 24 25 26 27 28 29 30



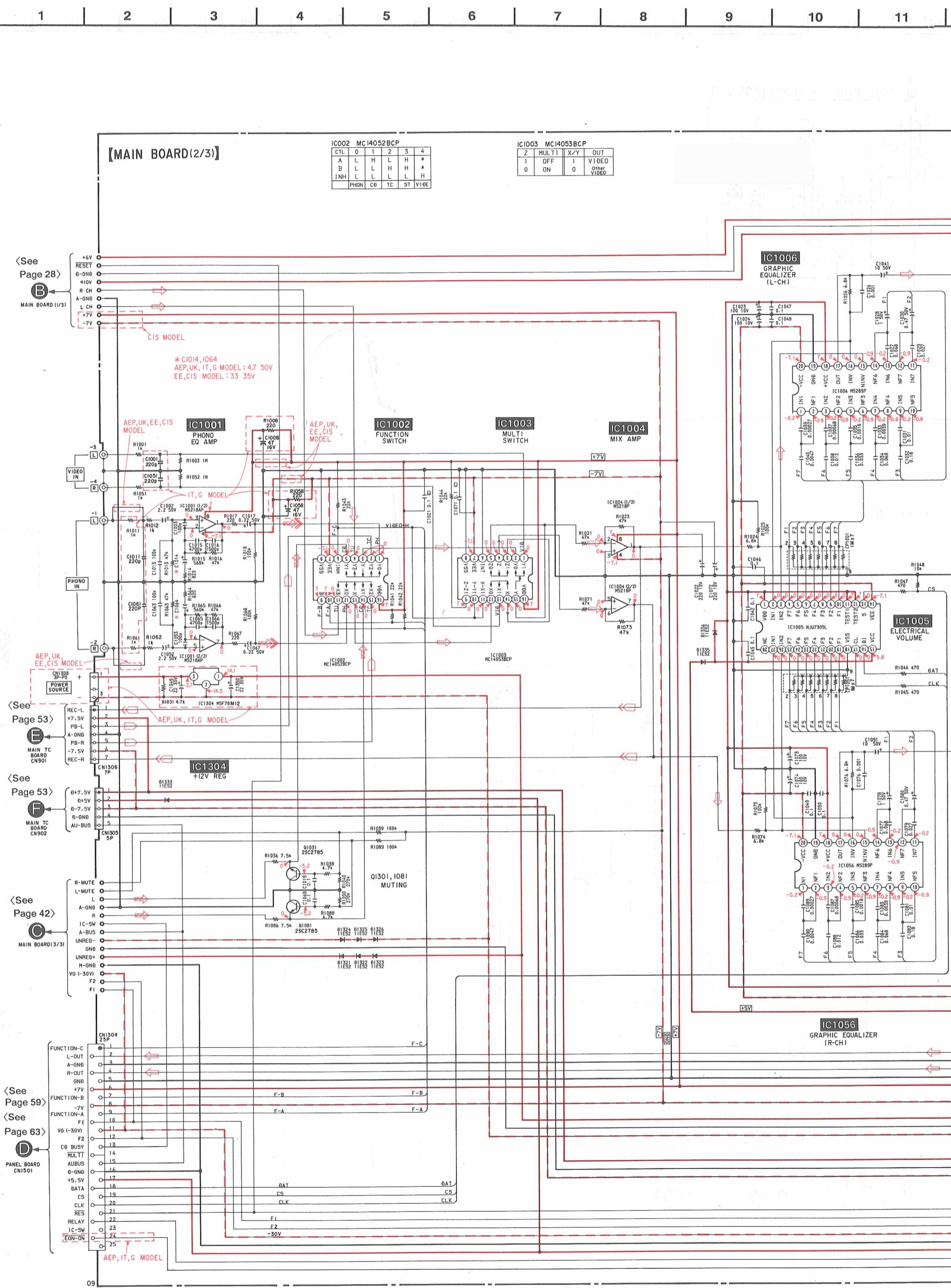
• Semiconductor Location

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D1	D-2	D1375	F-8	IC1703	D-23
D2	D-3	D1601	J-20		
D3	D-3	D1602	J-17	Q1	E-3
D301	J-13	D1603	J-17	Q2	E-3
D302	J-14	D1604	J-16	Q3	C-4
D303	C-13	D1605	J-17	Q4	D-4
D304	C-13	D1606	I-19	Q5	B-4
D305	C-13	D1611	I-20	Q6	B-4
D1201	E-18	D1612	J-19	Q7	B-4
D1202	B-16	D1613	J-17	Q8	B-4
D1203	A-12	D1701	D-22	Q55	D-2
D1251	B-18	D1702	E-24	Q61	C-2
D1301	C-11	D1703	F-23	Q62	B-2
D1304	C-9	D1704	D-25	Q71	C-3
D1305	C-8	D1705	F-23	Q72	B-3
D1306	C-8			Q301	J-13
D1307	C-8	IC1	F-4	Q302	C-14
D1313	E-7	IC51	F-2	Q303	C-14
D1314	E-8	IC8	I-4	Q1031	G-7
D1315	E-8	IC82	I-3	Q1081	H-7
D1316	D-7	IC83	I-2	Q1201	E-18
D1317	D-9	IC301	E-13	Q1251	B-18
D1318	D-9	IC302	D-13	Q1341	G-12
D1319	F-9	IC304	J-14	Q1370	G-8
D1320	F-9	IC305	B-14	Q1371	G-8
D1321	D-12	IC306	B-14	Q1611	I-19
D1322	D-11	IC307	E-13	Q1621	J-21
D1323	C-11	IC1001	C-6	Q1701	D-24
D1324	D-12	IC1002	E-6	Q1702	D-23
D1325	D-11	IC1003	G-6	Q1703	E-23
D1326	C-11	IC1004	H-6	Q1704	E-23
D1331	D-7	IC1005	H-10	Q1705	F-24
D1333	E-7	IC1006	I-10		
D1335	H-9	IC1056	G-10		
D1336	H-9	IC1201	B-19		
D1337	D-8	IC1301	D-8		
D1341	G-12	IC1302	D-9		
D1342	C-12	IC1303	D-7		
D1343	C-12	IC1304	A-8		
D1371	D-10	IC1341	G-13		
D1372	D-10	IC1601	J-19		
D1373	D-10	IC1701	C-24		
D1374	D-10	IC1702	C-25		

Note:

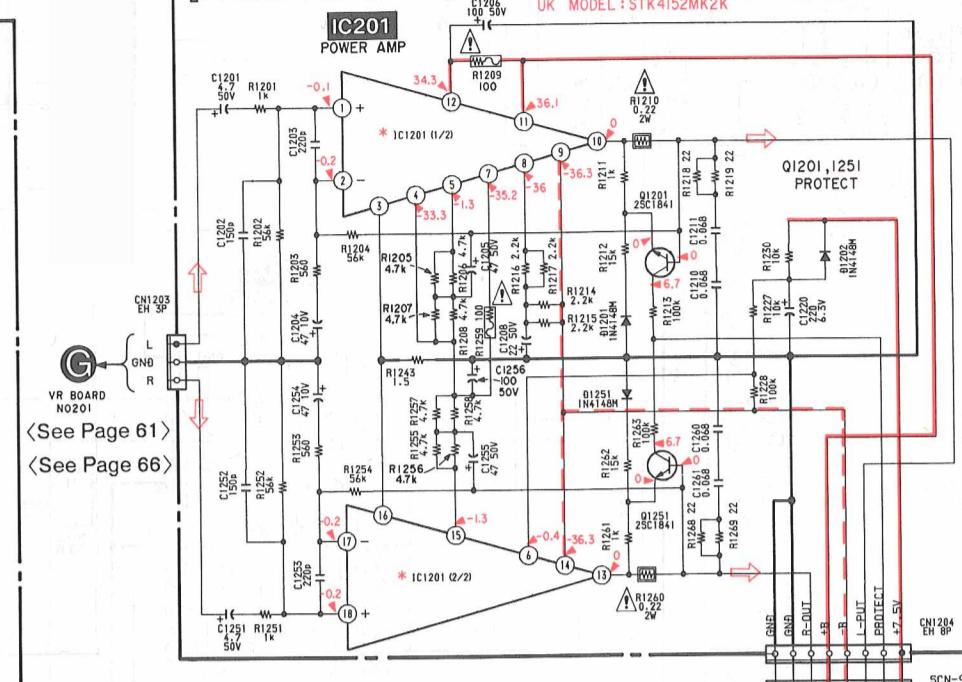
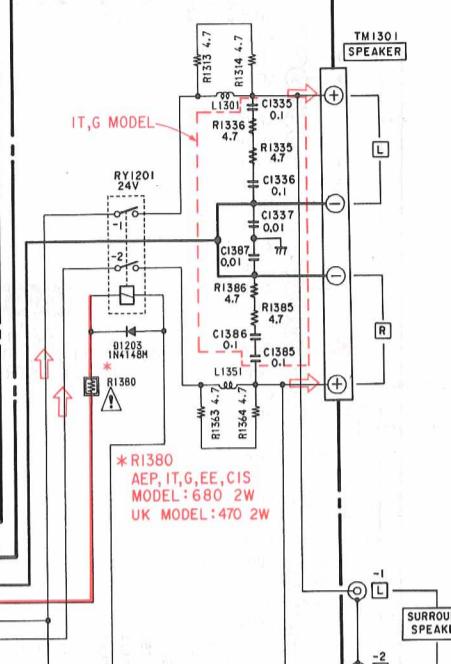
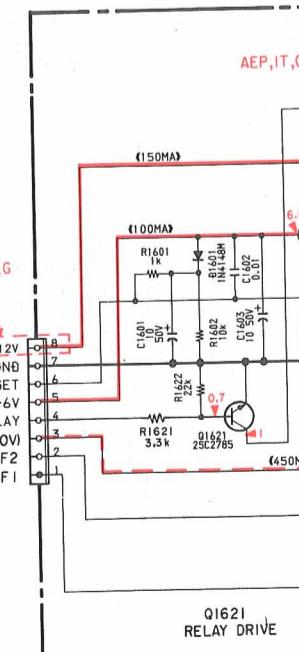
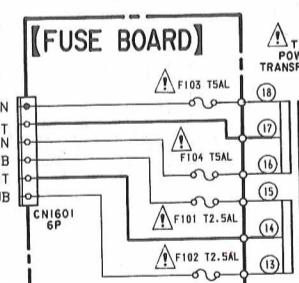
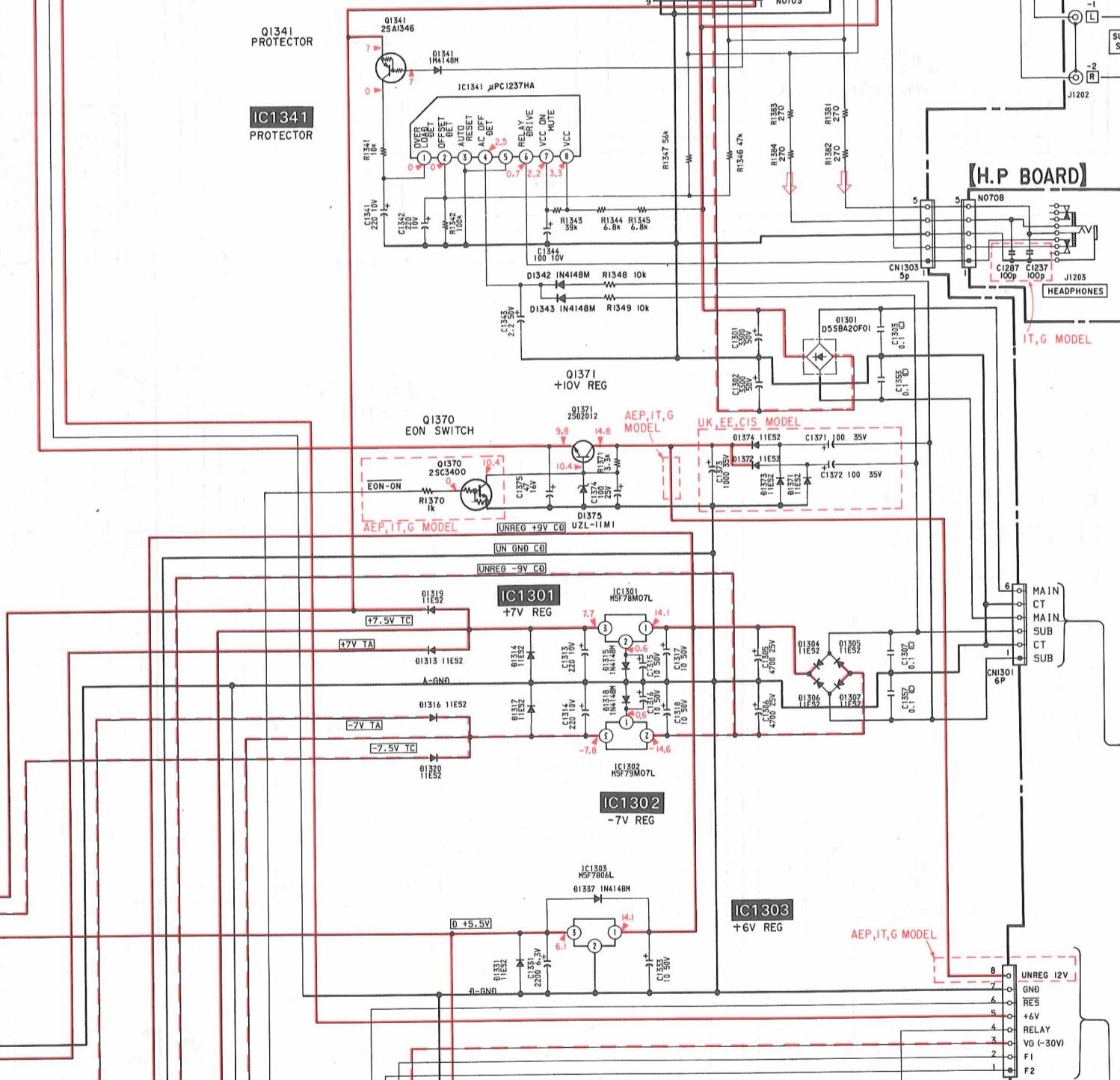
- : parts extracted from the component side.
- : Pattern from the side which enable seeing.
- G : German model.
- IT : Italian model.
- EE : East European model.

5-7. SCHEMATIC DIAGRAM — MAIN SECTION —



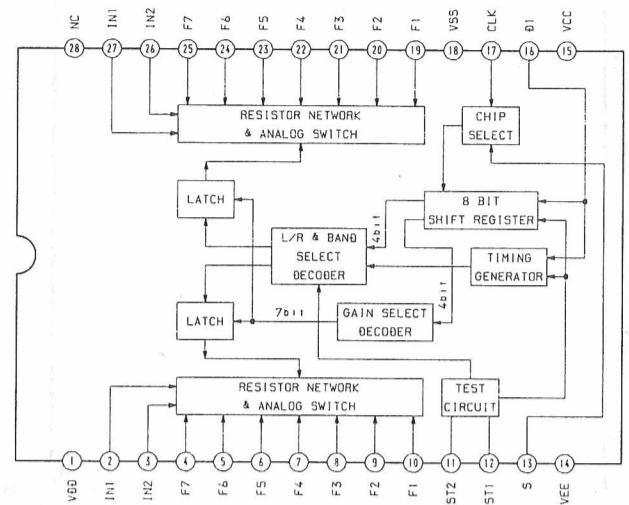
POWER AMP BOARD

*IC1201
AEP, IT, G, EE, CIS MODEL: STK4162MK2K
UK MODEL: STK4152MK2K

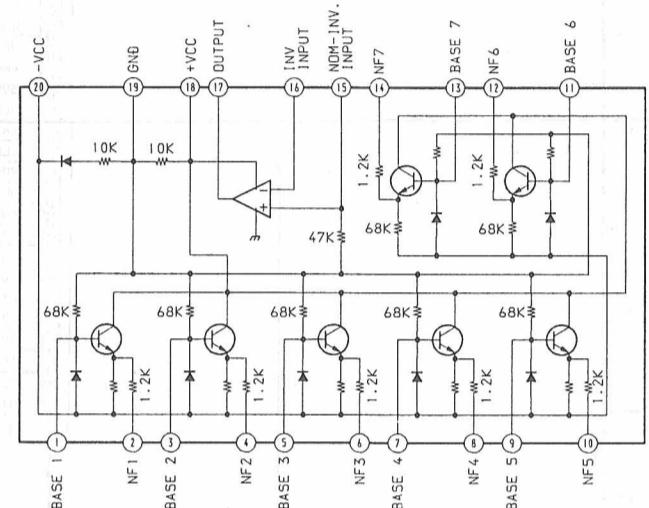
**IT,G MODEL****H.P BOARD**

- IC Block Diagrams.

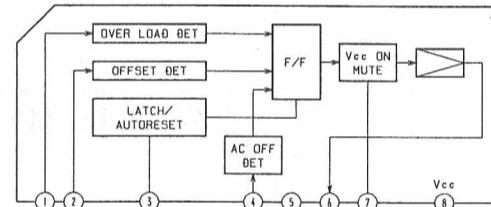
IC1005 NJU7305L



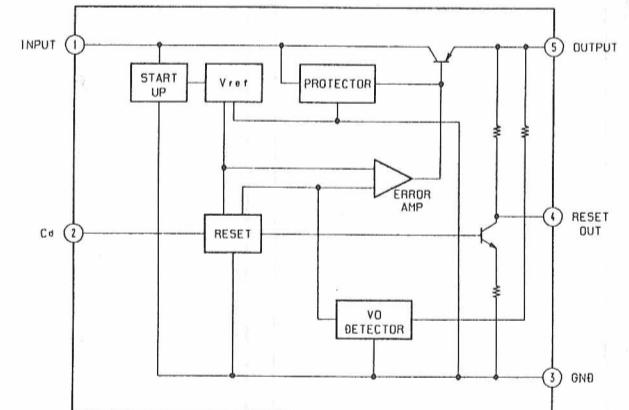
IC1006, 1056 M5289P



IC1341 μPC1237HA



IC1601 L78MR06

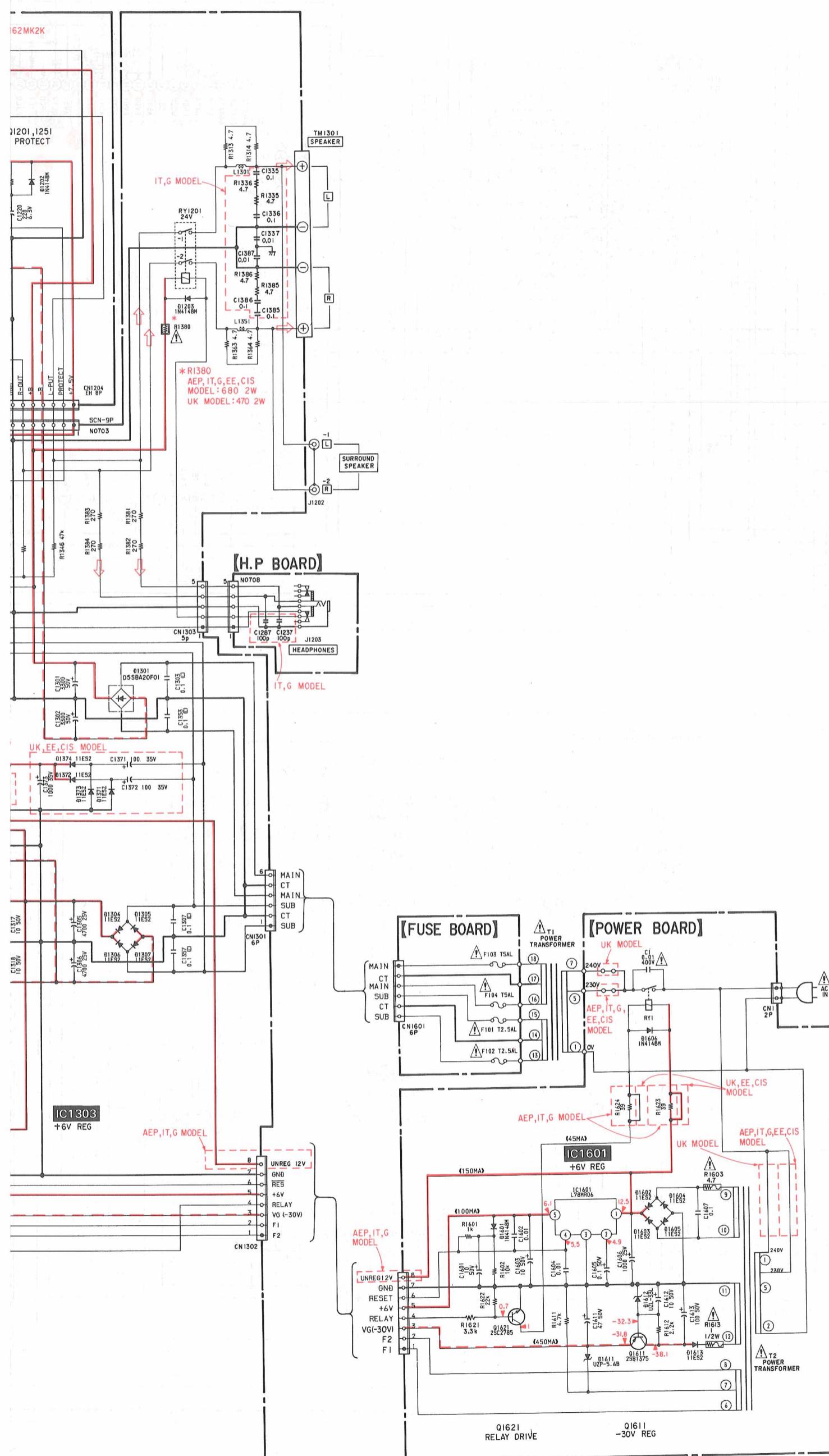


Note:

- All capacitors are in μF unless otherwise noted. pF: μF
50WV or less are not indicated except for electrolytics and tantalums.
 - All resistors are in Ω and 1/4W or less unless otherwise specified.
 -  : internal component.
 -  : nonflammable resistor.
 -  : fusible resistor.

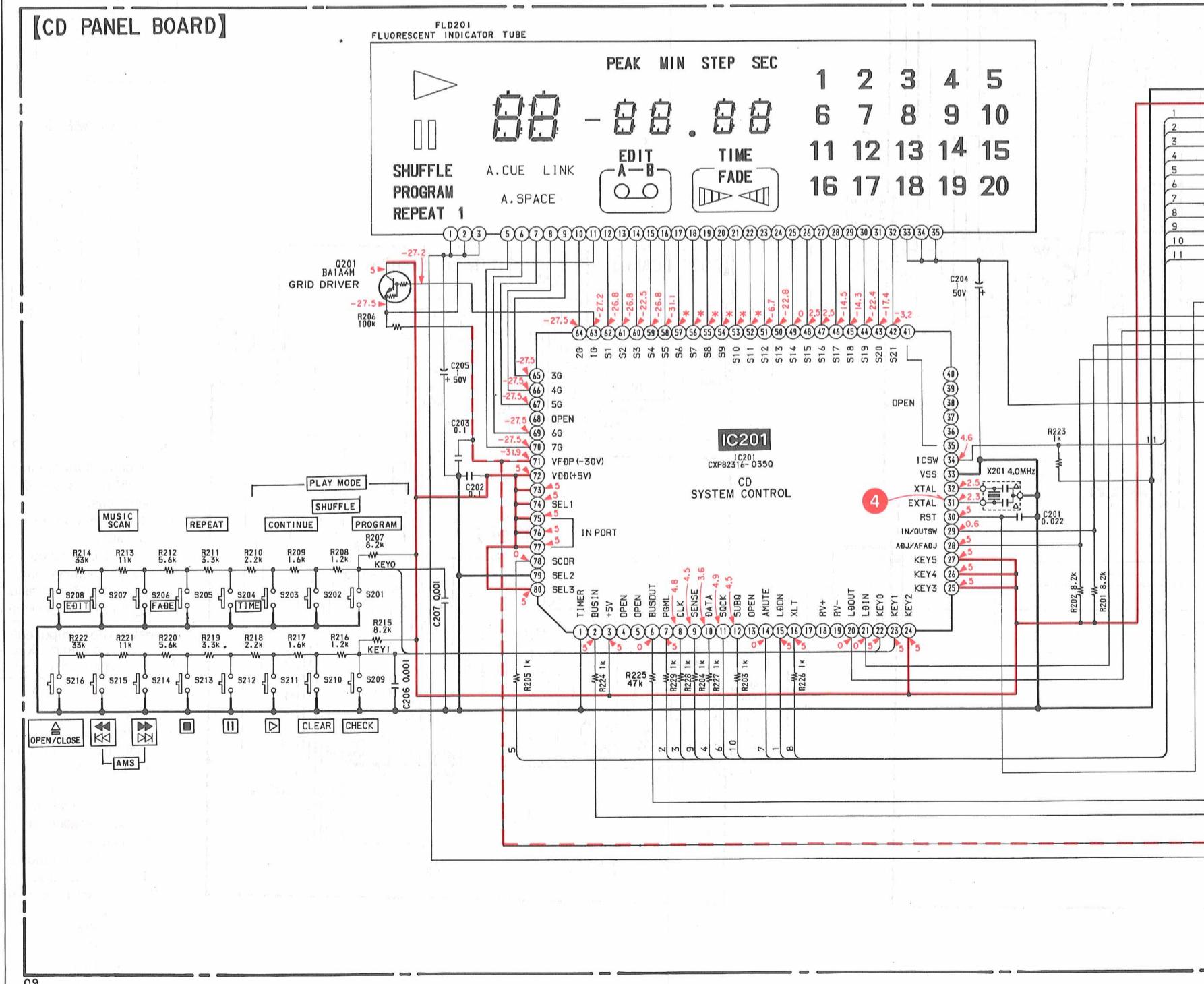
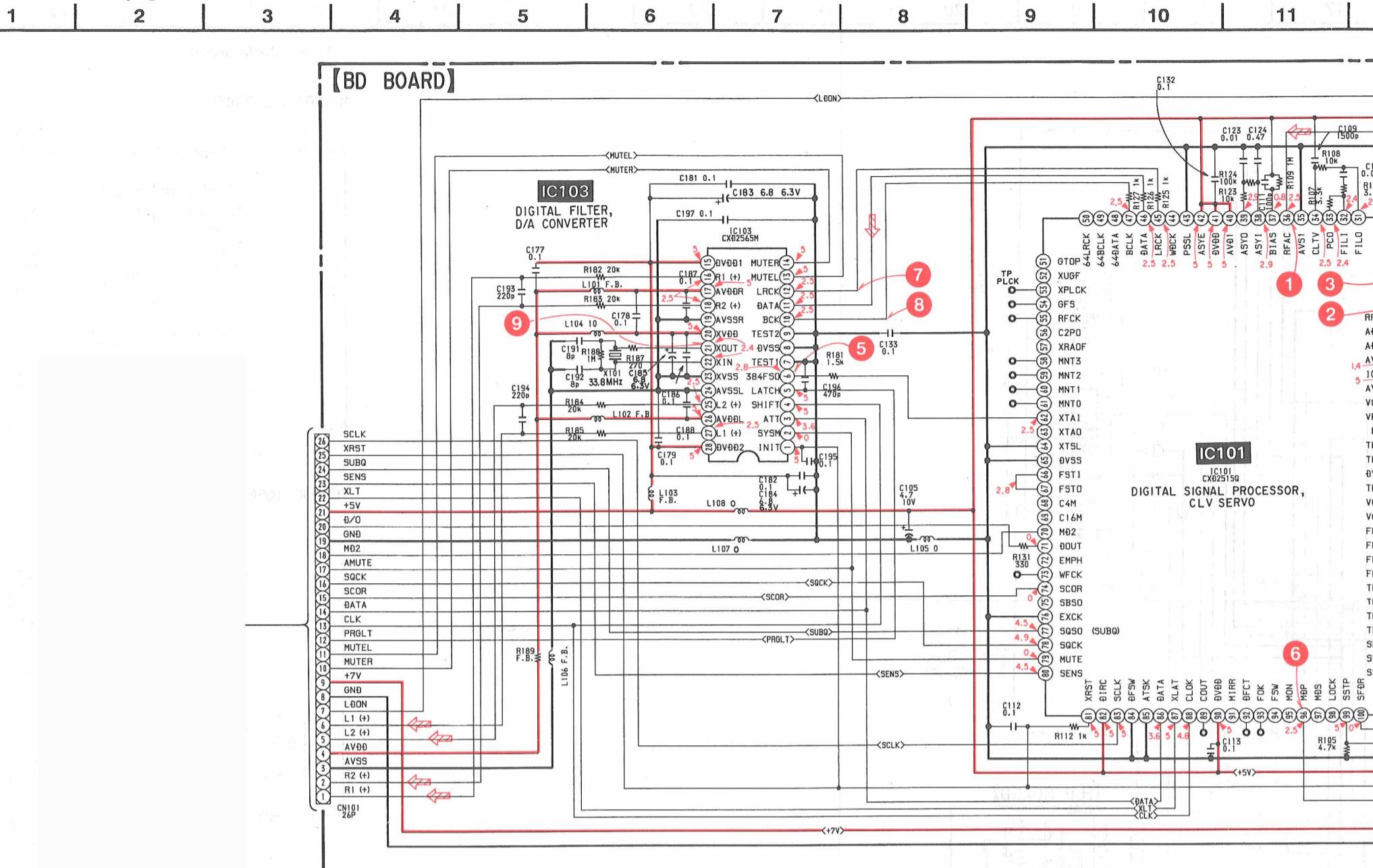
Note: The components identified by mark Δ or dotted line with mark Δ are critical for safety.
Replace only with part number specified.

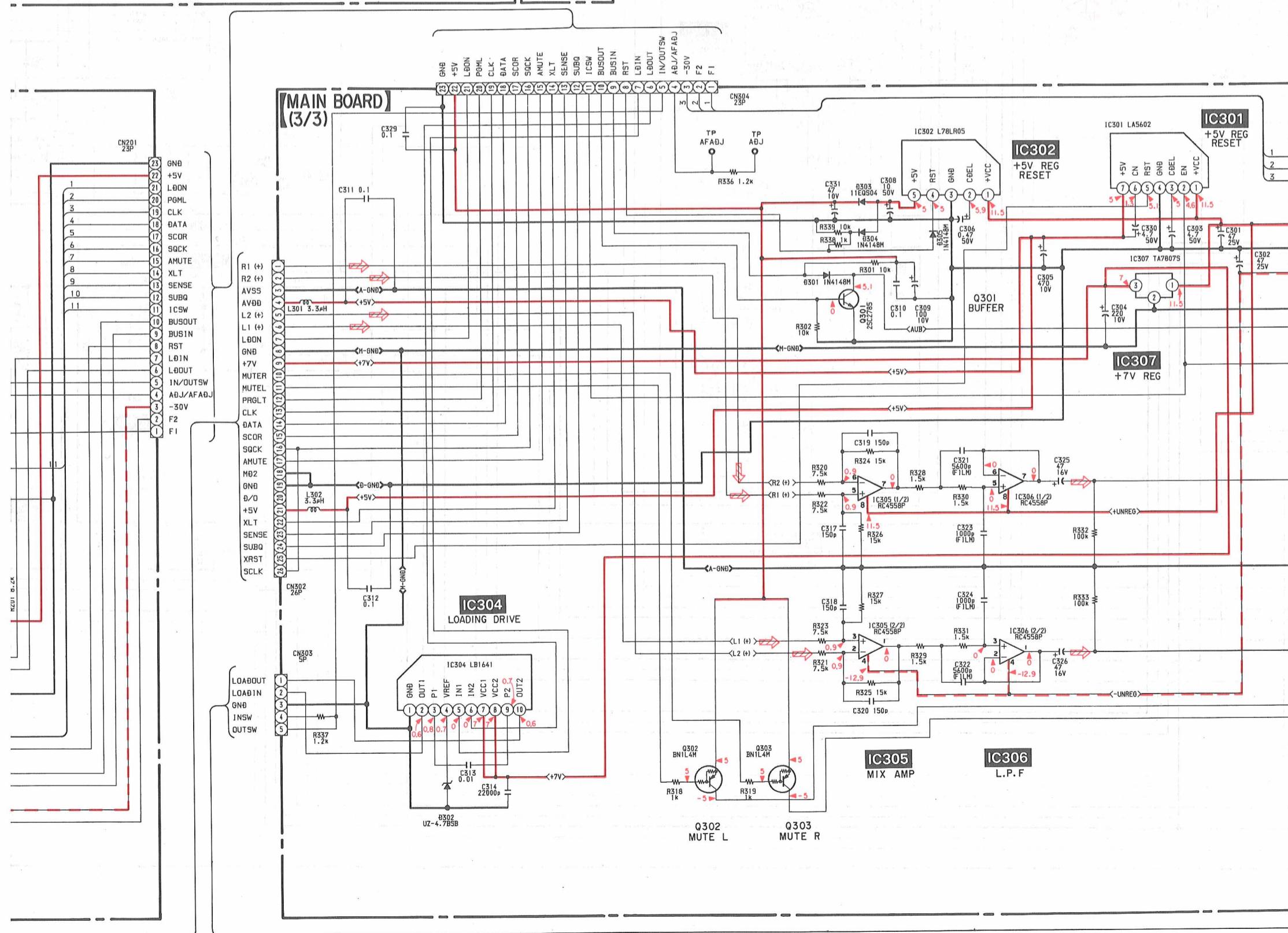
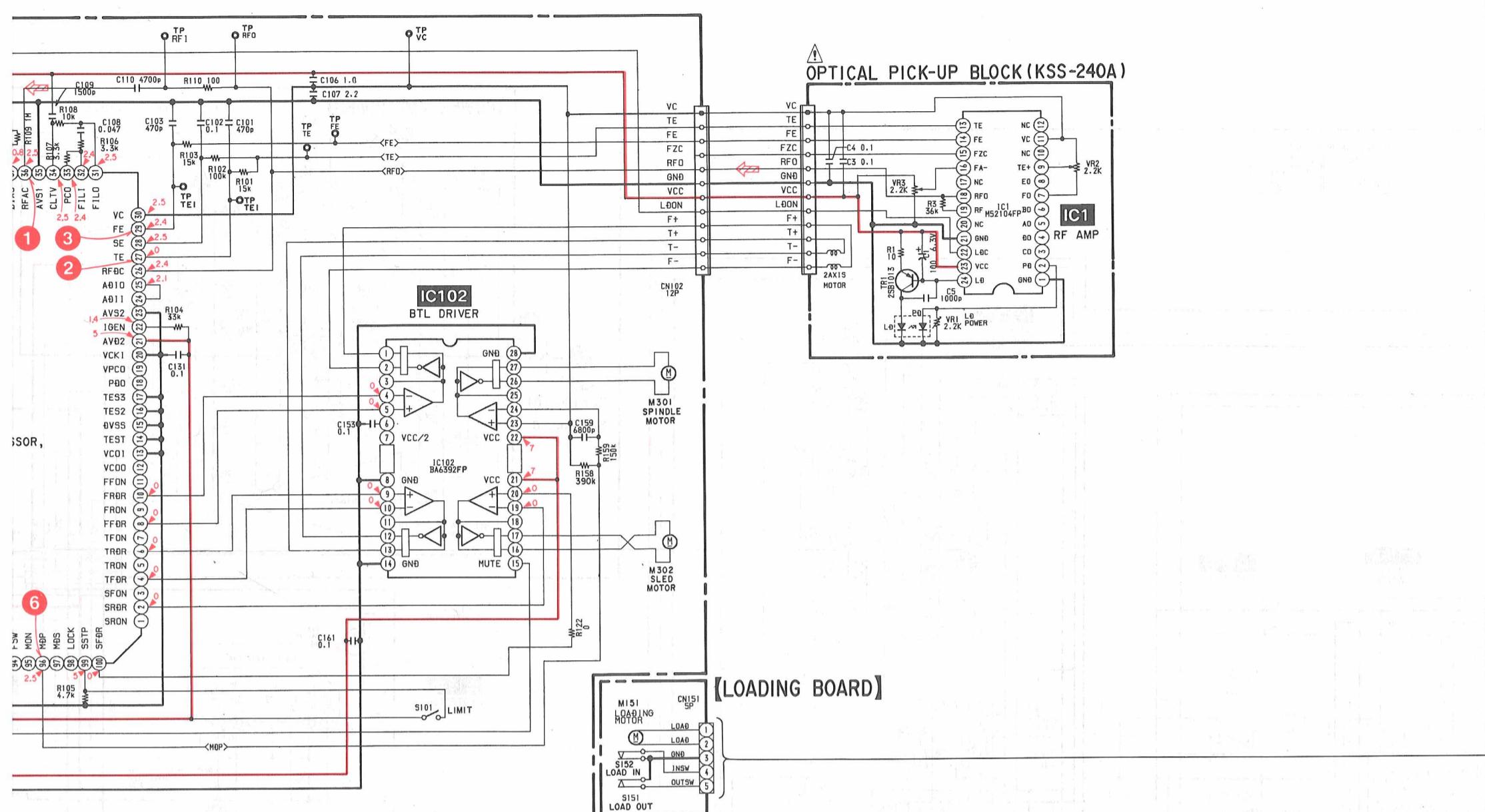
- : B+ Line
 - : B- Line
 - Voltage and waveforms are dc with respect to ground under no-signal conditions.
 - no mark : FM
 - * : can not be measured.
 - Voltages are taken with a VOM (Input impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
 - G : German model.
 - IT : Italian model.
 - EE : East European model.
 - Signal path.
 - : FM
 - : PB
 - ⇒ : REC
 - ↗ : CD
 - ↔ : PHONO



5-8. SCHEMATIC DIAGRAM — CD SECTION —

- Refer to page 31 for Printed Wiring Boards. (Main Board)
- See pages 45, 46 for IC Block Diagrams.
- See pages 70 to 73 for IC Pin Functions.





20

21

22

23

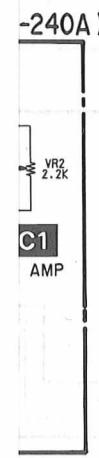
24

25

26

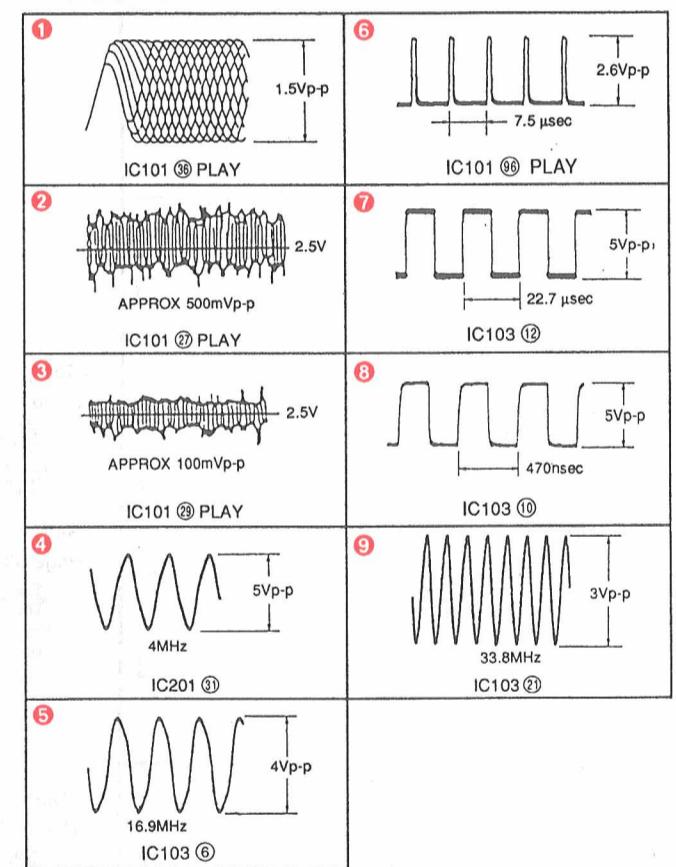
27

28



MAIN BOARD (2/3)
(See Page 35)

• Waveforms.



Note:

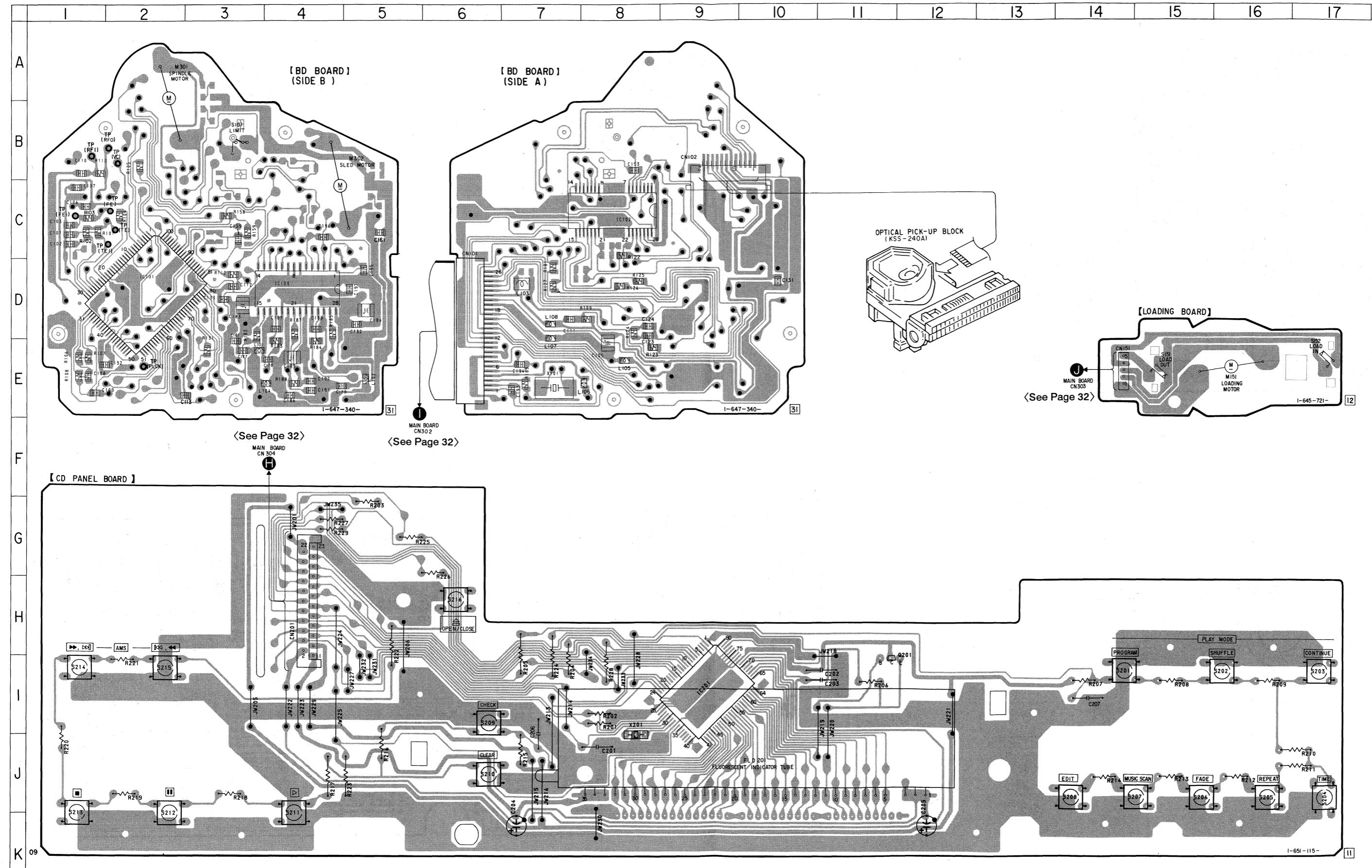
- All capacitors are in μF unless otherwise noted. pF: $\mu\mu\text{F}$ 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- Δ : internal component.
- : panel designation.

Note: The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

- : B+ Line
- : B- Line
- Voltage and waveforms are dc with respect to ground under no-signal conditions.
no mark : CD PLAY
* : can not be measured.
- Voltages are taken with a VOM (Input impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circle numbers refer to waveforms.
- Signal path.
- CD

5-9. PRINTED WIRING BOARDS — CD SECTION —

- See page 12 for Circuit Boards Location.
 - See pages 22, 23 for Semiconductor Lead Layouts.



- Semico

Ref. No.
IC101
IC102
IC103
IC201
Q201

Note:

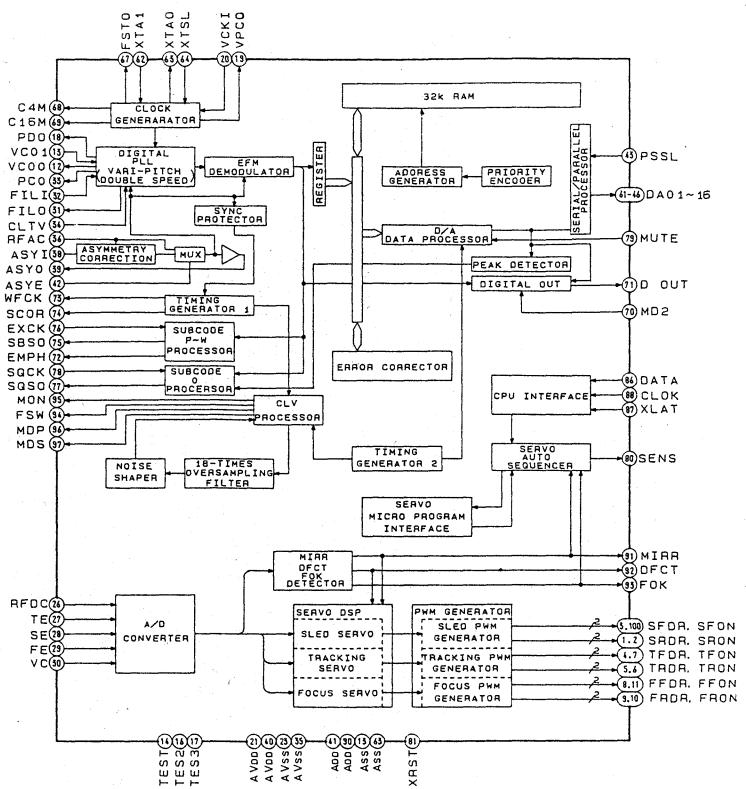
-

• IC Block Diagrams.

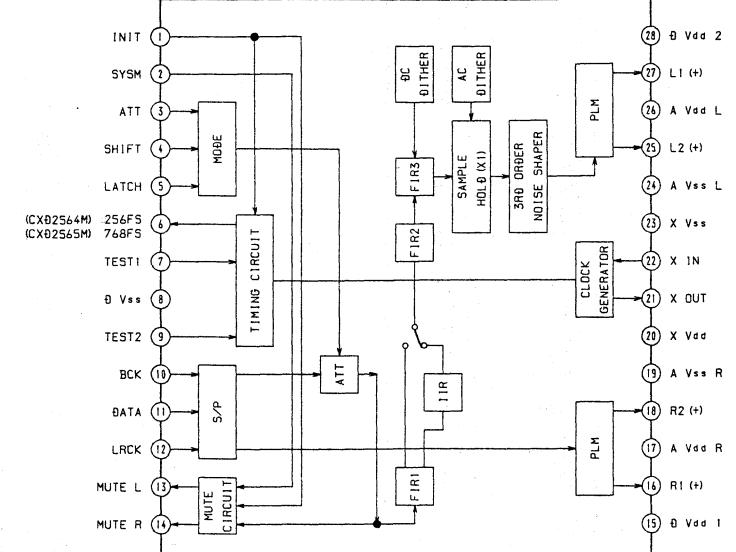
• Semiconductor Location

Ref. No.	Location
IC101	D-2
IC102	C-8
IC103	D-4
IC201	I-9
Q201	I-12

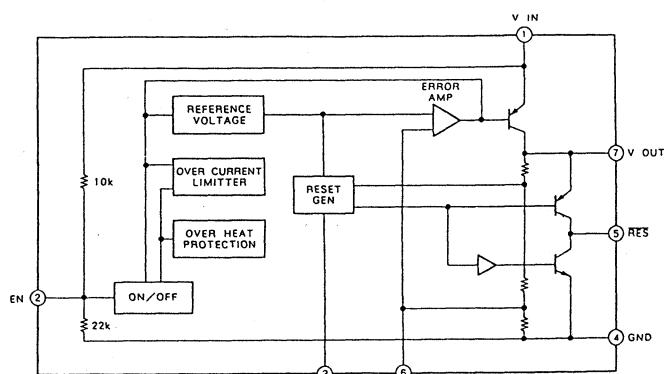
IC101 CXD2515Q



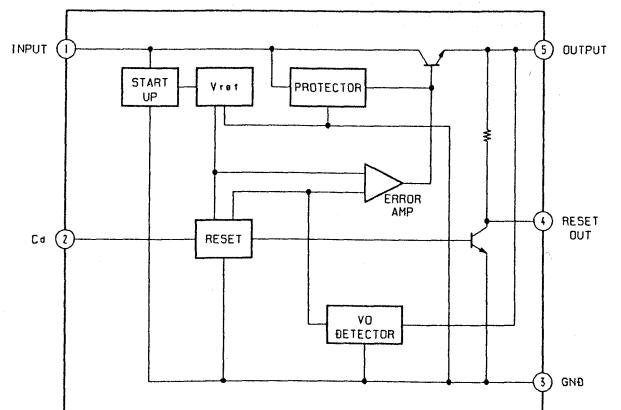
IC103 CXD2565M



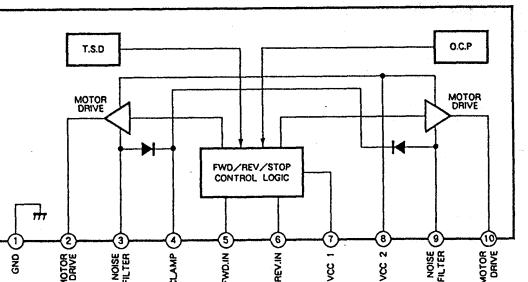
IC301 LA5602



IC302 L78LR05



IC304 LB1641



Note:

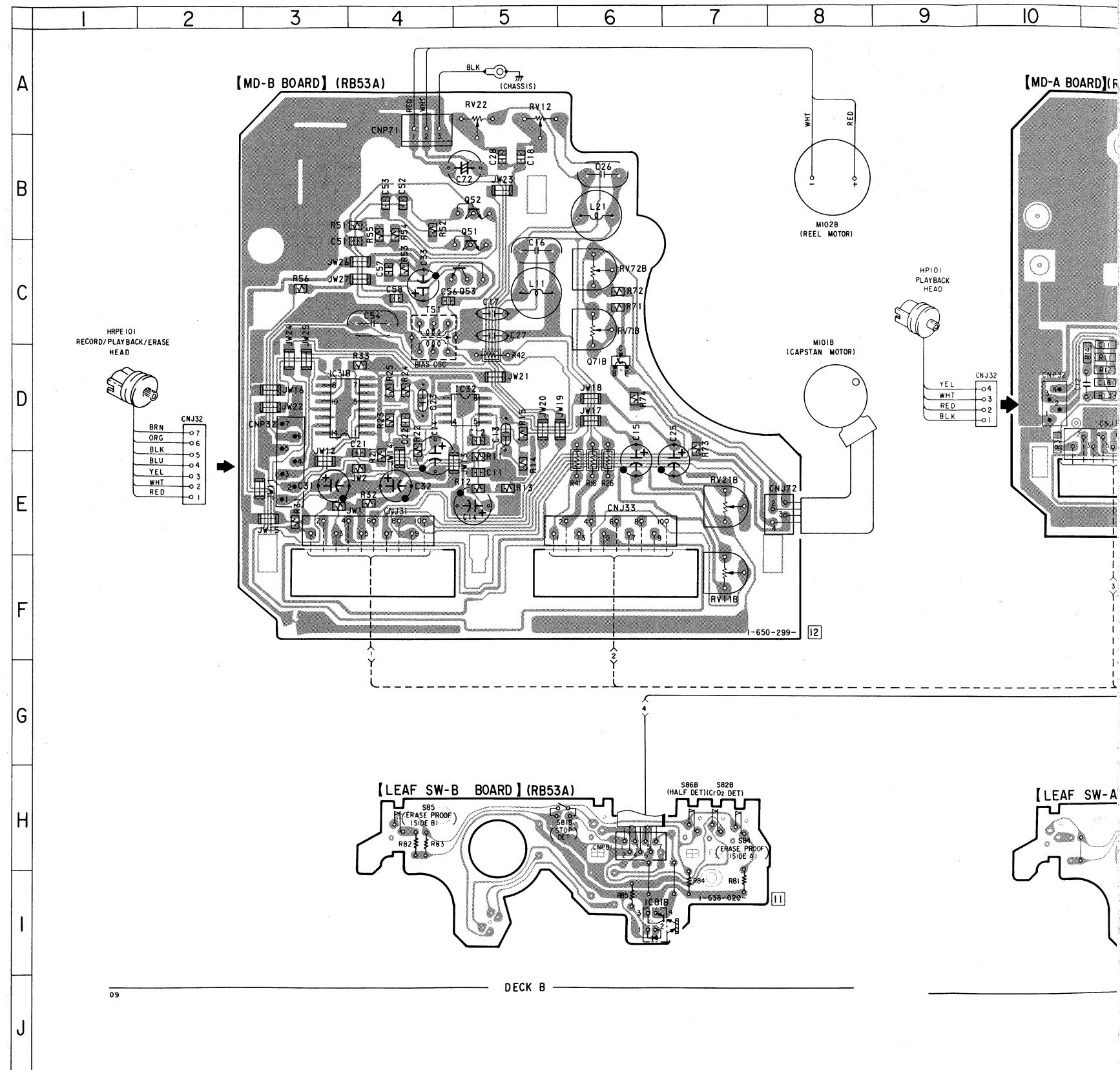
- : parts extracted from the component side.
- : Through hole.
- : Pattern from the side which enable seeing.
(The other layer's patterns are not indicated.)

5-10. PRINTED WIRING BOARDS — DECK SECTION —

- See page 12 for Circuit Boards Location.
 - See pages 22, 23 for Semiconductor Lead Layouts.

- Semiconductor Location

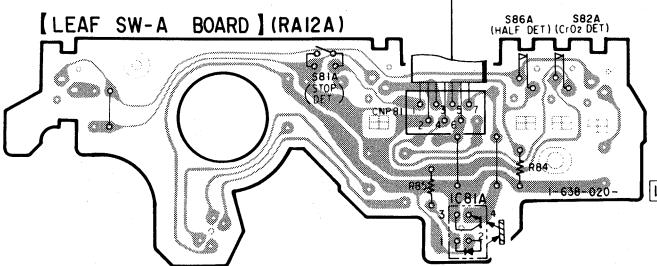
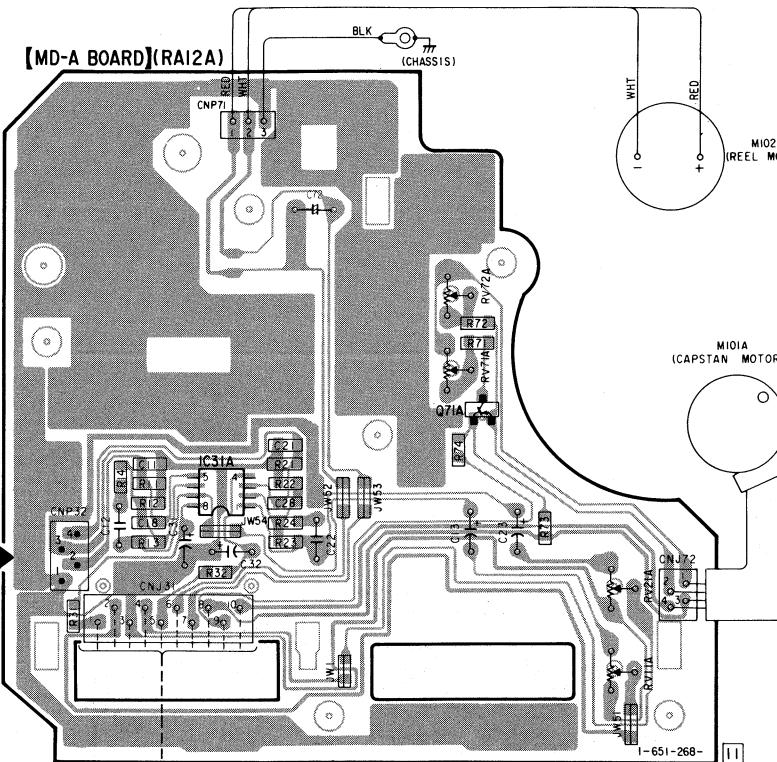
Ref. No.	Location
D901	I-18
D902	K-22
D903	K-19
D904	J-17
D905	J-18
D982	D-24
D983	D-24
D991	B-19
D992	B-20
D994	D-19
D995	D-19
D997	B-19
D998	B-19
IC31A	D-11
IC31B	C-3
IC32	D-5
IC81A	I-13
IC81B	I-6
IC901	I-25
IC902	I-20
IC903	I-19
IC904	I-23
Q51	C-5
Q52	B-5
Q53	C-5
Q71A	C-13
Q71B	D-6
Q701	H-24
Q801	H-23
Q901	H-18
Q902	I-18
Q903	I-18
Q904	H-18
Q905	K-19
Q906	H-22
Q907	H-22
Q908	H-23
Q909	H-23
Q910	I-18



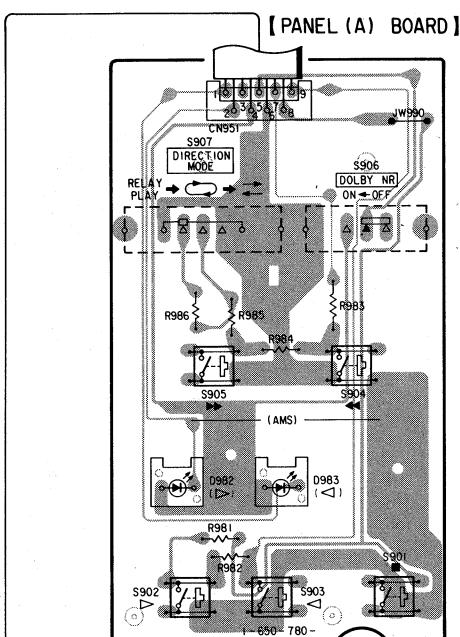
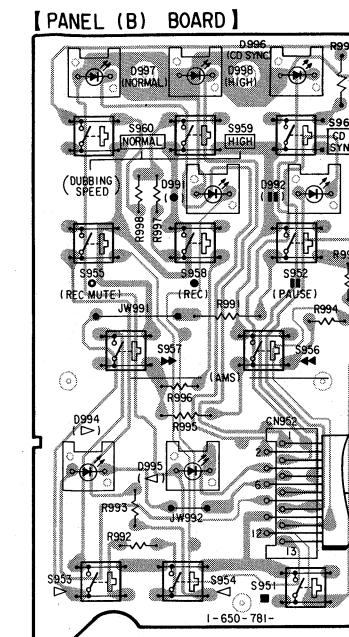
Note:-

- : parts extracted from the component side.
 - [] : indicates side identified with part number.
 - [] : Pattern from the side which enable seeing.

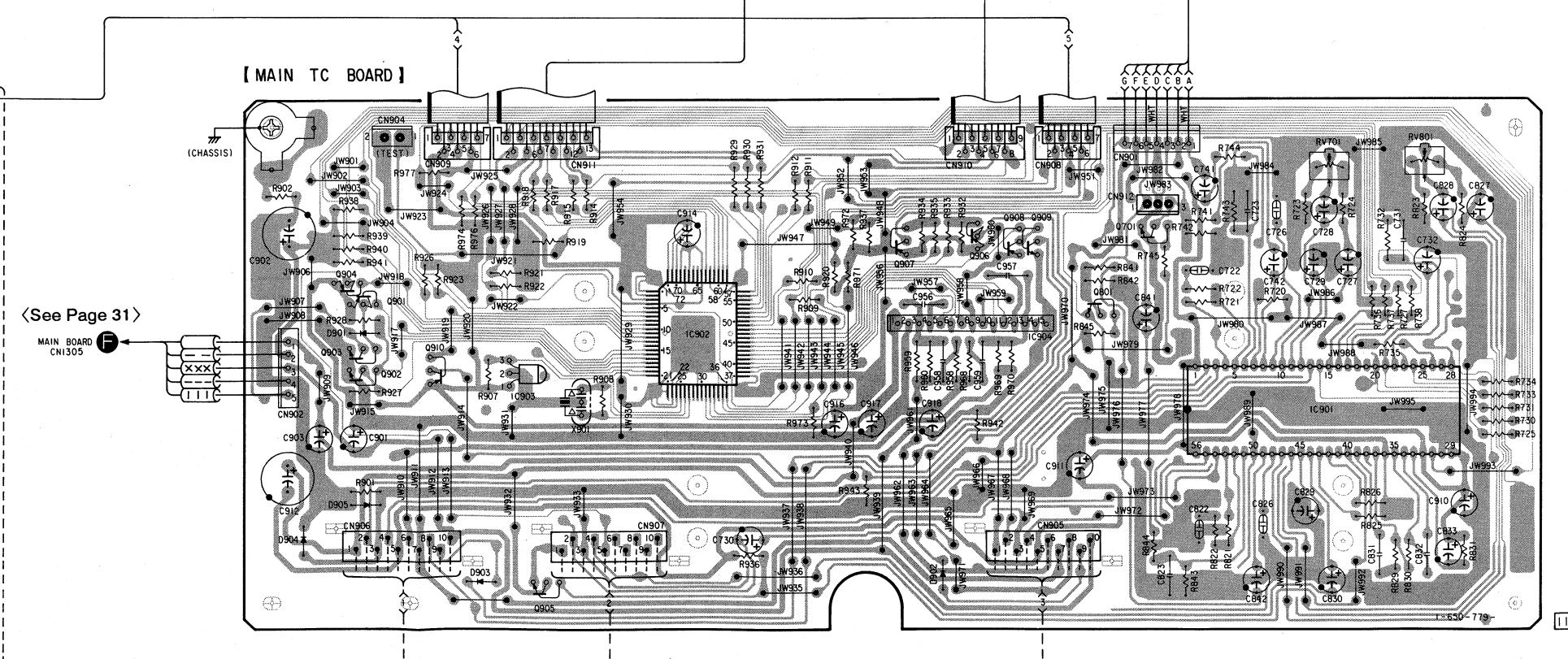
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27



DECK A



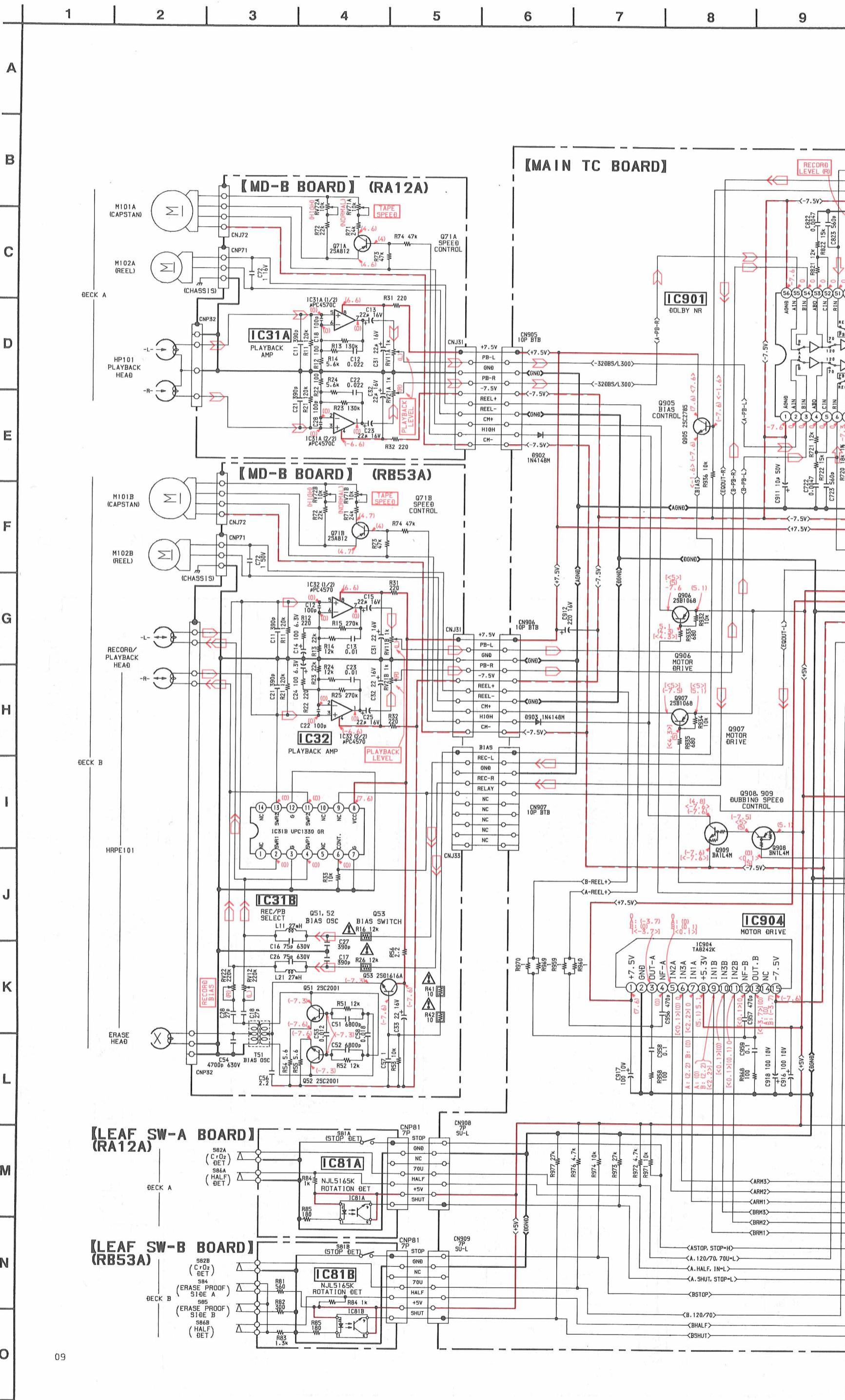
⟨See Page 31⟩

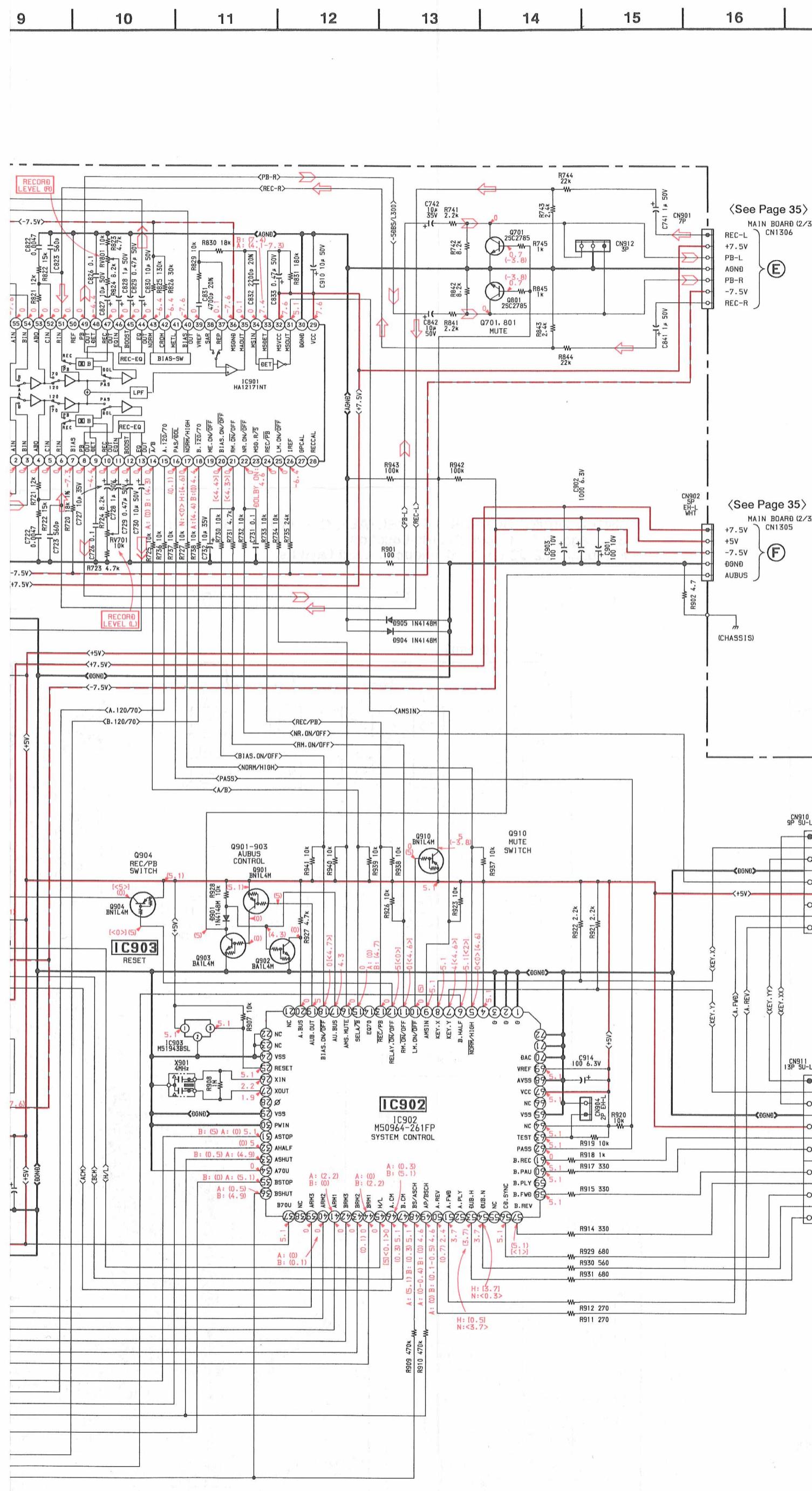


— 50 —

— 49 —

5-11. SCHEMATIC DIAGRAM — DECK SECTION —
 • See pages for 78, 79 IC Pin Functions.





NOTE

- All capacitors are in μF unless otherwise noted, pF : $\mu\mu F$
50W or less are not indicated except for electrolytics
and tantalums.
 - All resistors are in Ω and 1/4W or less unless otherwise
specified.
 -  :internal component.
 -  :nonflammable resistor.
 -  :panel designation.

Note: The components identified by mark or dotted line with mark are critical for safety. Replace only with part number specified.

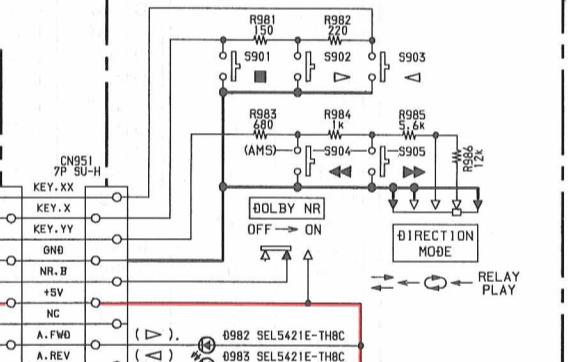
- :B+ Line.
 - :B- Line.
 - :adjustment for repair.
 - Voltages and waveforms are dc with respect to ground under no-signal conditions.

no mark:FM
 () :PB
 < >:NORMAL SPEED DUBBING
 []:HIGH SPEED DUBBING
 [K]:DUBBING
 A:DECK A PB
 B:DECK B PB

 - Voltages are taken with a VOM (Input impedance $10M\Omega$). Voltage variations may be noted due to normal production tolerances.
 - Signal path.

	:FM		:PB (DECK B)
	:PB (DECK A)		:REC (DECK B)

【PANEL (A) BOARD】



The schematic diagram illustrates a complex telephone circuit board layout. Key components include:

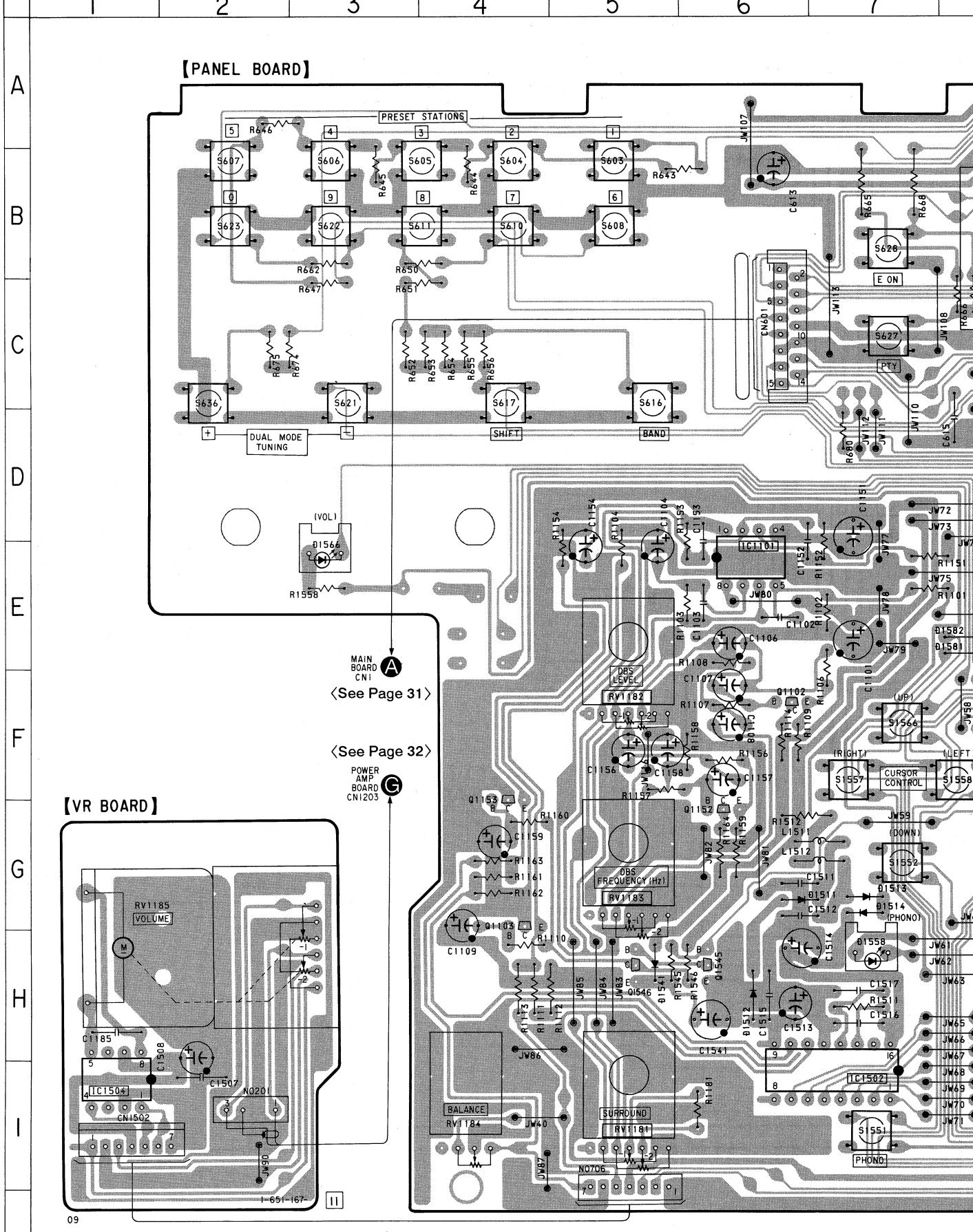
- Resistors:** R990 (150Ω), R991 (220Ω), R992 (330Ω), R993 (470Ω), R994 (330Ω), R995 (470Ω), R996 (680Ω), R997 (1kΩ), R998 (1.8kΩ), R999 (3.9kΩ).
- Switches:** S951, S952 (labeled '(PAUSE)'), S953, S954, S955, S956, S957, S958 (labeled '(REC)').
- Logic Components:** 74LS161, 74LS162, 74LS164, 74LS165.
- Labels:** REC MUTE, (AMS), (DUBBING SPEED), (NORMAL), (HIGH), (CB SYNC), (CB SYNC).
- Bottom Labels:** 0991 SEL5221S-THBC, 0992 SEL5821A-THBC, 0994 SEL5241E-THBC, 0995 SEL5421E-THBC, 0996 SEL5221S-THBC, 0997 SEL5221S-THBC, 0998 SEL5221S-THBC, 0961 (CB SYNC).

5-12. PRINTED WIRING BOARDS — PANEL (AEP, G, IT MODEL) SECTION —

- See page 12 for Circuit Boards Location.
- See pages 22, 23 for Semiconductor Lead Layouts.

• Semiconductor Location

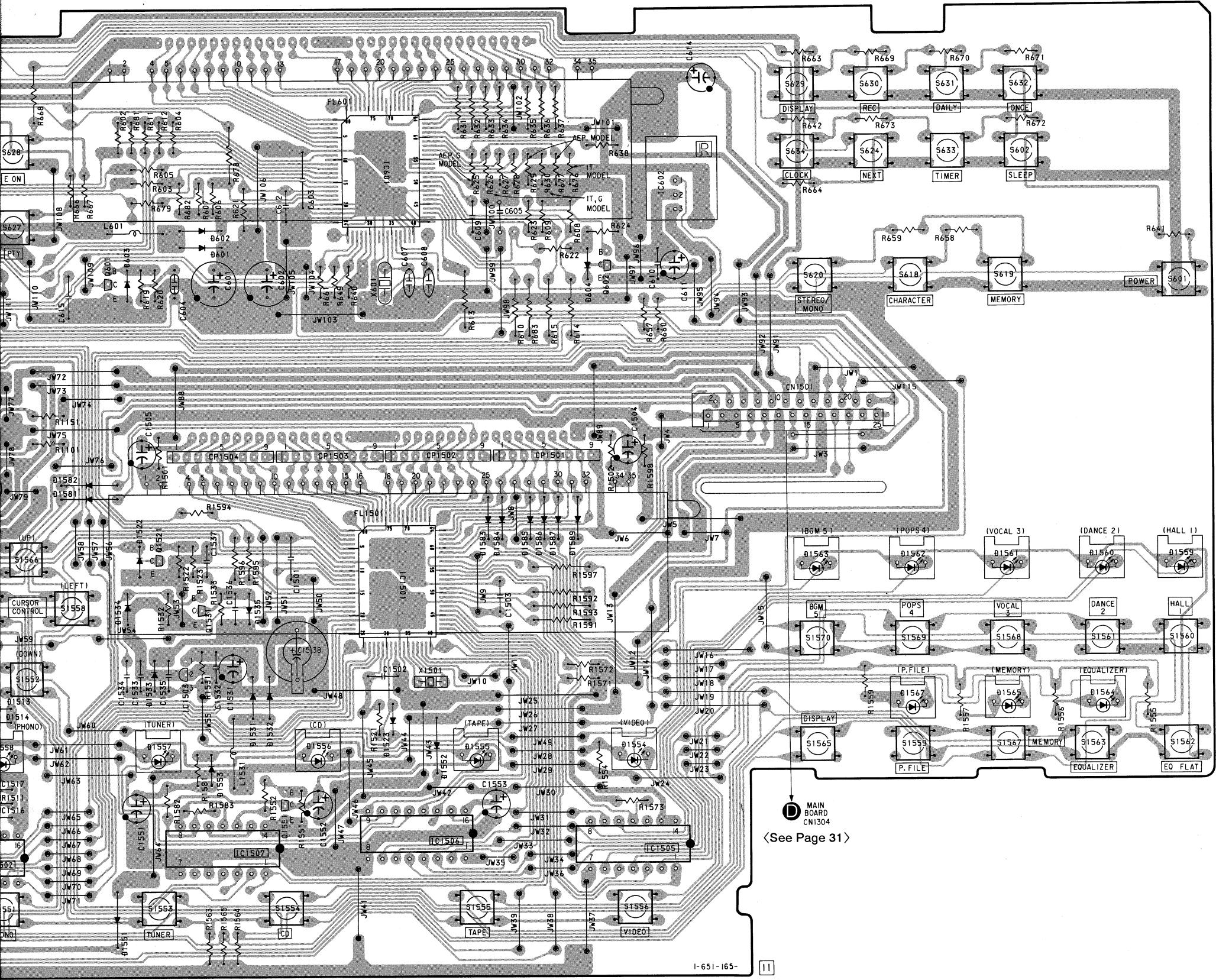
Ref. No.	Location	Ref. No.	Location
D601	C-9	D1567	G-15
D602	C-9	D1581	E-8
D603	C-8	D1582	E-8
D604	C-12	D1583	F-11
D1511	G-6	D1584	F-11
D1512	H-6	D1585	F-12
D1513	G-7	D1586	F-12
D1514	G-7	D1587	F-12
D1522	F-8	D1589	F-12
D1523	G-10		
D1531	G-9	IC601	B-10
D1532	G-9	IC602	C-13
D1533	G-8	IC1101	E-6
D1534	F-8	IC1501	F-11
D1535	F-9	IC1502	I-7
D1541	H-5	IC1503	G-9
D1551	I-8	IC1504	I-1
D1552	H-11	IC1505	I-13
D1553	H-9	IC1506	H-11
D1554	H-13	IC1507	I-9
D1555	H-11		
D1556	H-10	Q601	C-8
D1557	H-8	Q602	C-12
D1558	H-7	Q1102	F-6
D1559	F-18	Q1103	G-4
D1560	F-17	Q1152	G-6
D1561	F-16	Q1153	G-4
D1562	F-15	Q1521	F-8
D1563	F-14	Q1531	F-9
D1564	G-17	Q1545	H-6
D1565	G-16	Q1546	H-5
D1566	E-3	Q1551	H-10



Note:

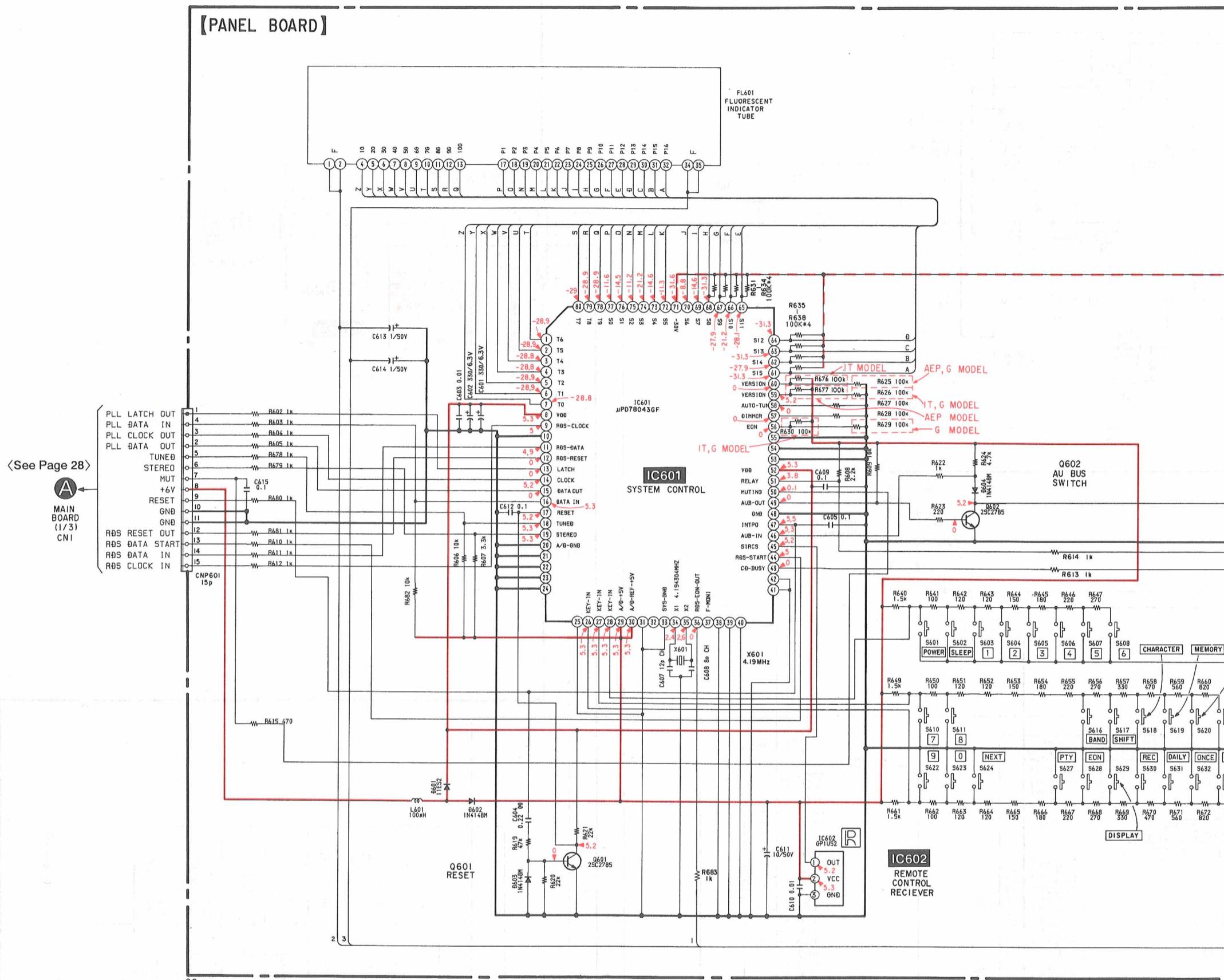
- : parts extracted from the component side.
- : Pattern from the side which enable seeing.
- G : German model.
- IT : Italian model.

8 9 10 11 12 13 14 15 16 17 18



5-13. SCHEMATIC DIAGRAM — PANEL (AEP, G, IT MODEL) SECTION —
 • See pages 74, 75 and 80, 81 for IC Pin Functions.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35



Note:

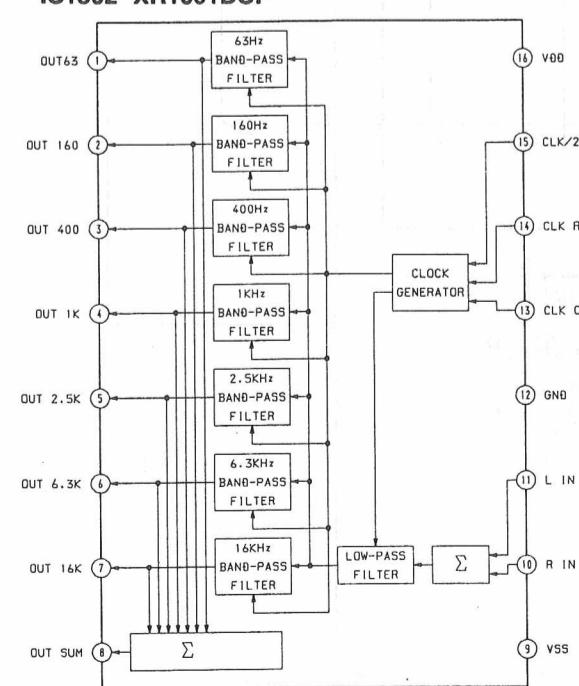
- All capacitors are in μF unless otherwise noted. pF: μF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- Δ : internal component.
- $\boxed{\quad}$: panel designation.

Note: The components identified by mark Δ or dotted line with mark Δ are critical for safety.
 Replace only with part number specified.

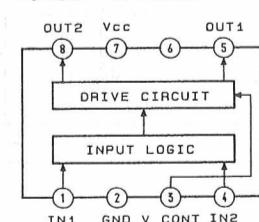
- --- : B+ Line
- ---- : B- Line
- Voltage and waveforms are dc with respect to ground under no-signal conditions.
 no mark : FM
 () : TAPE
- * : can not be measured.
- Voltages are taken with a VOM (Input impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.
- G : German model.
 IT : Italian model.
- Signal path.
 \Rightarrow : FM

• IC Block Diagrams.

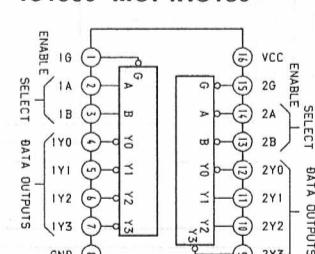
IC1502 XR1091DCP

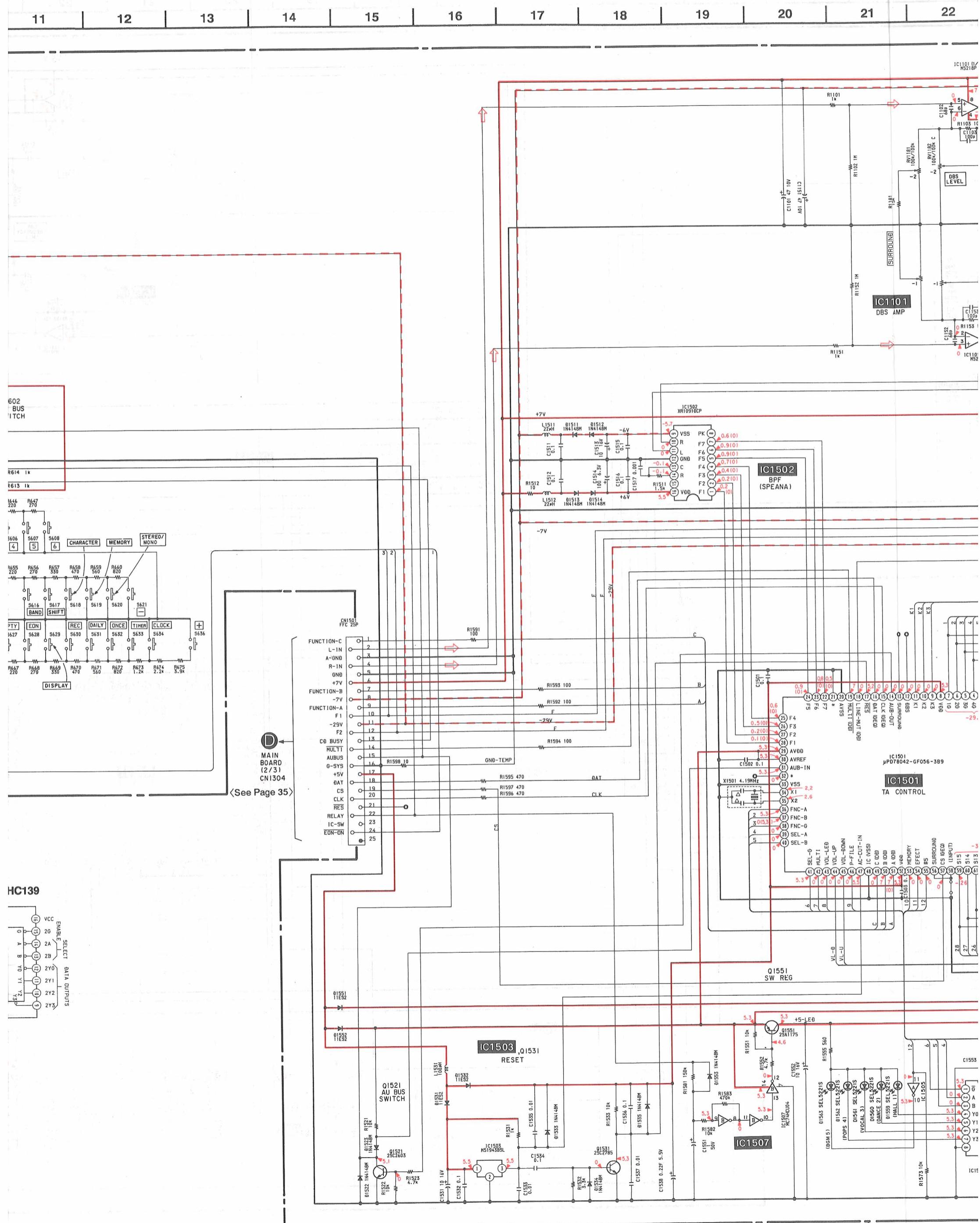


IC1504 LB1639

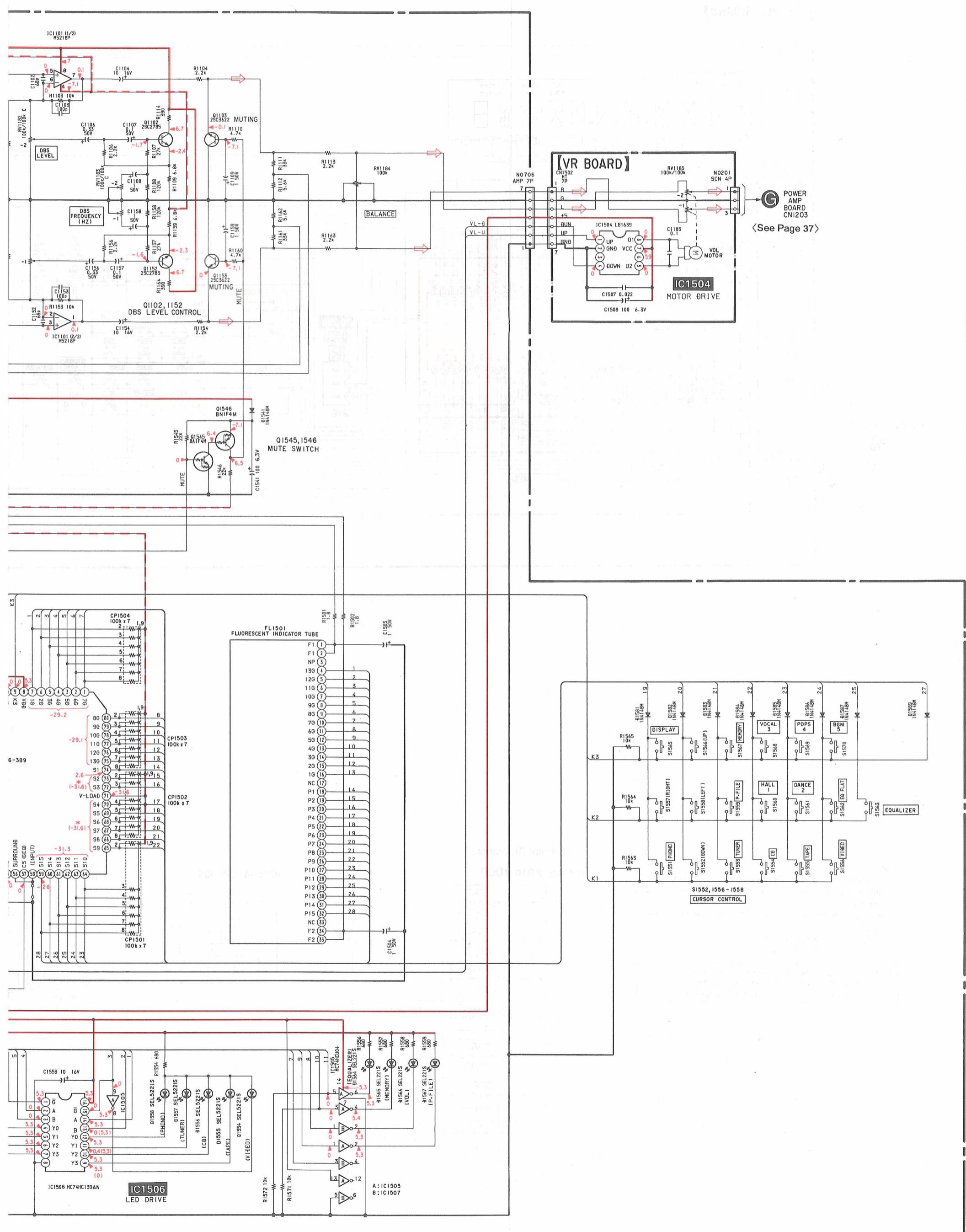


IC1506 MC74HC139



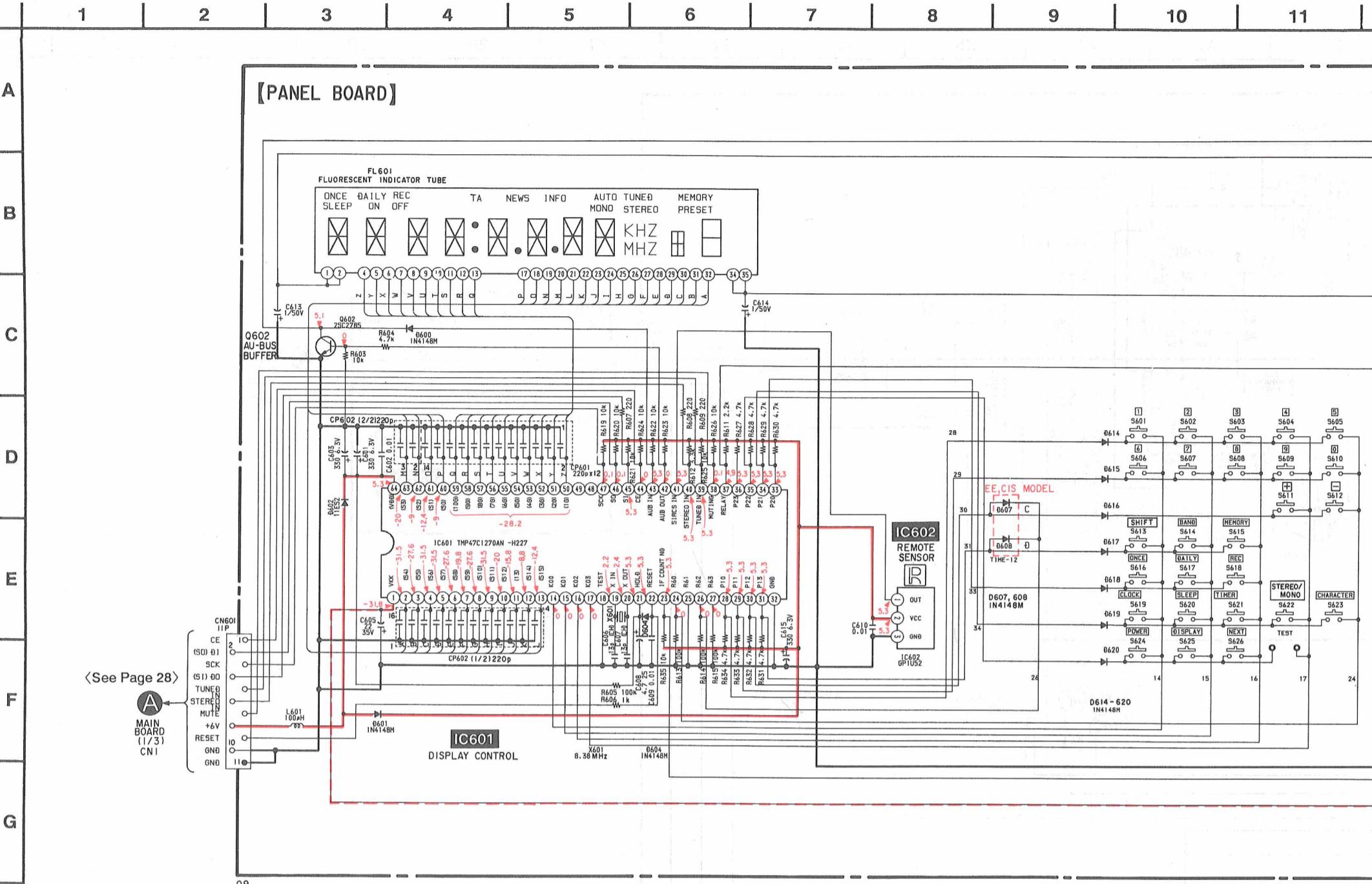


22 23 24 25 26 27 28 29 30 31 32 33



5-14. SCHEMATIC DIAGRAM — PANEL (UK, EE, CIS MODEL) SECTION —
See pages 76, 77, 80 and 81 for IC Pin Functions.

- See pages 76, 77, 80 and 81 for IC Pin Functions



Note:

- Note:**

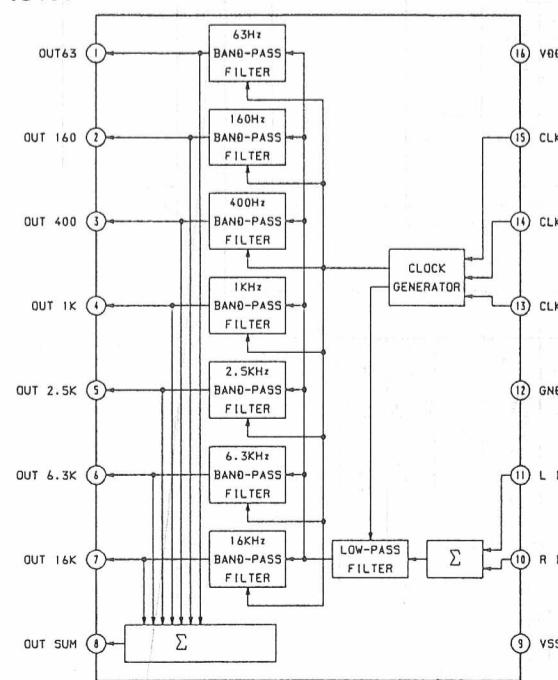
 - All capacitors are in μF unless otherwise noted. pF: $\mu\mu\text{F}$ 50WV or less are not indicated except for electrolytics and tantalums.
 - All resistors are in Ω and 1/4W or less unless otherwise specified.
 - \triangle : internal component.
 - \square : panel designation.

Note: The components identified by mark Δ or dotted line with mark Δ are critical for safety.
Replace only with part number specified.

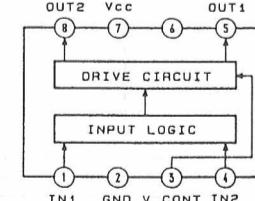
- : B+ Line
 - : B- Line
 - Voltage and waveforms are dc with respect to ground under no-signal conditions.
 - no mark : FM
 - () : TAPE
 - * : can not be measured.
 - Voltages are taken with a VOM (Input impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
 - EE : East European model.
 - Signal path.
 - ↗ : FM

• IC Block Diagrams.

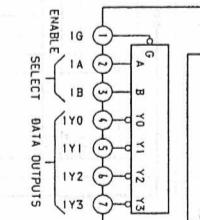
IC1502 XR1091DCP

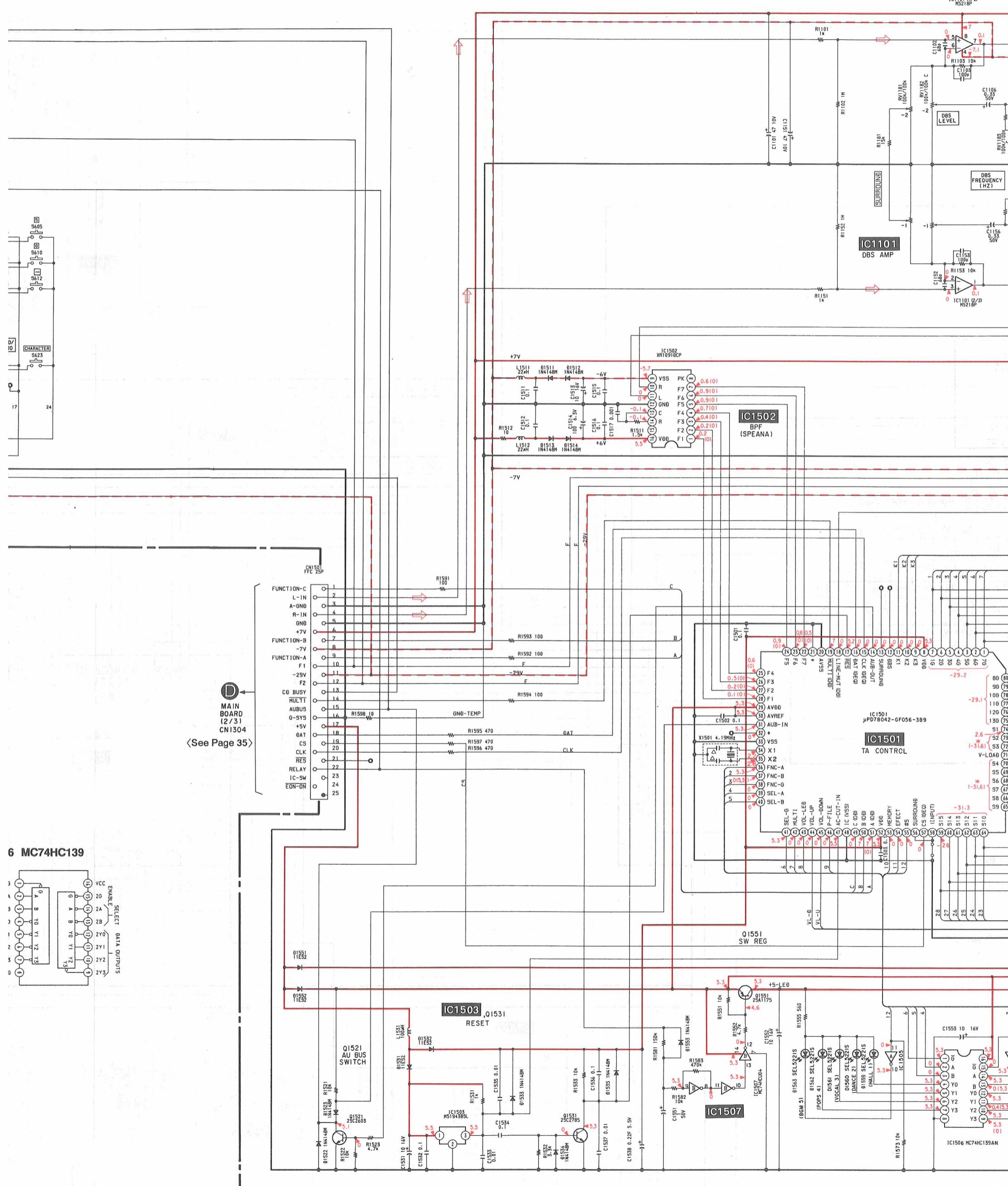


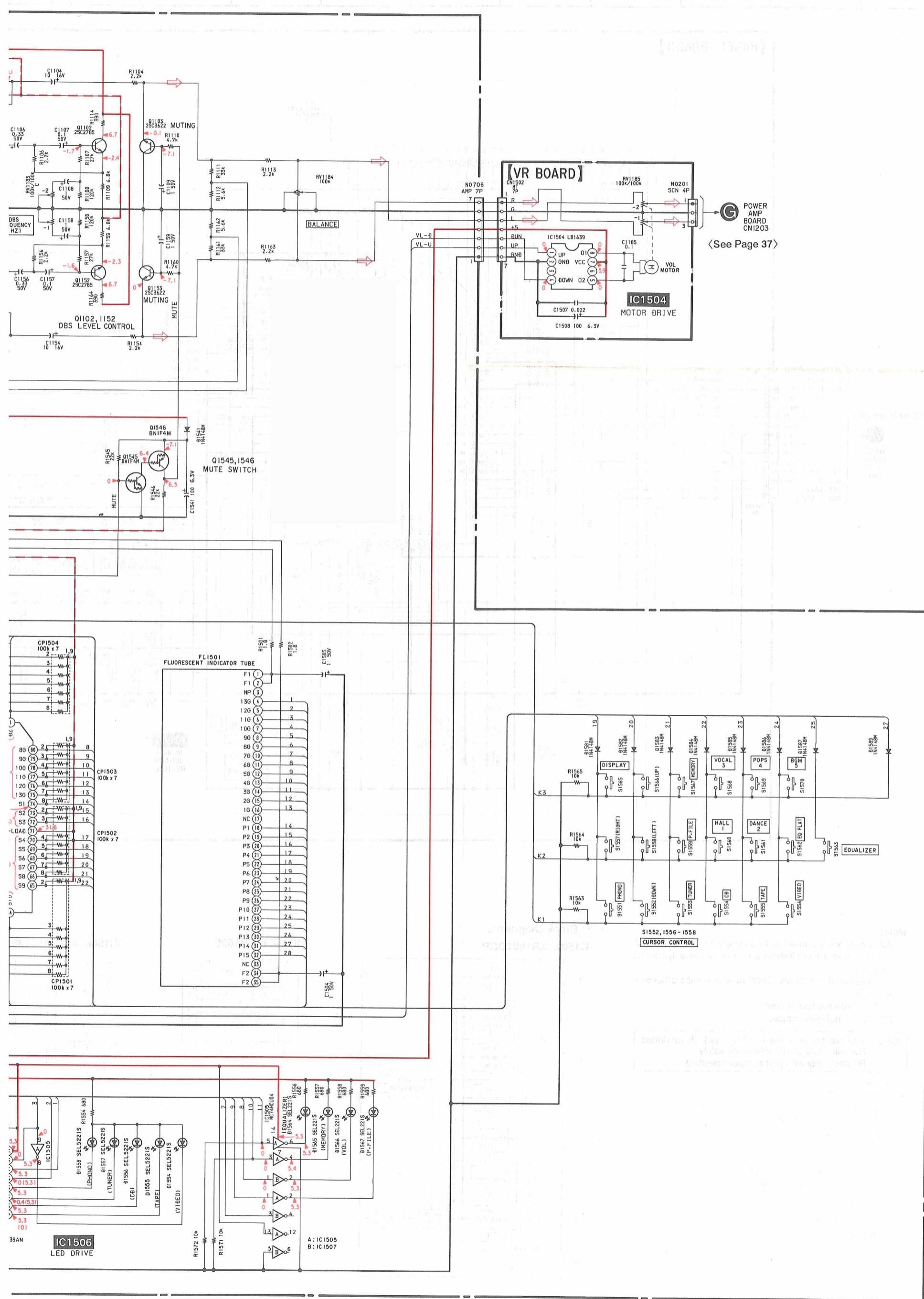
IC1504 LB1639



IC1506 MC74HC

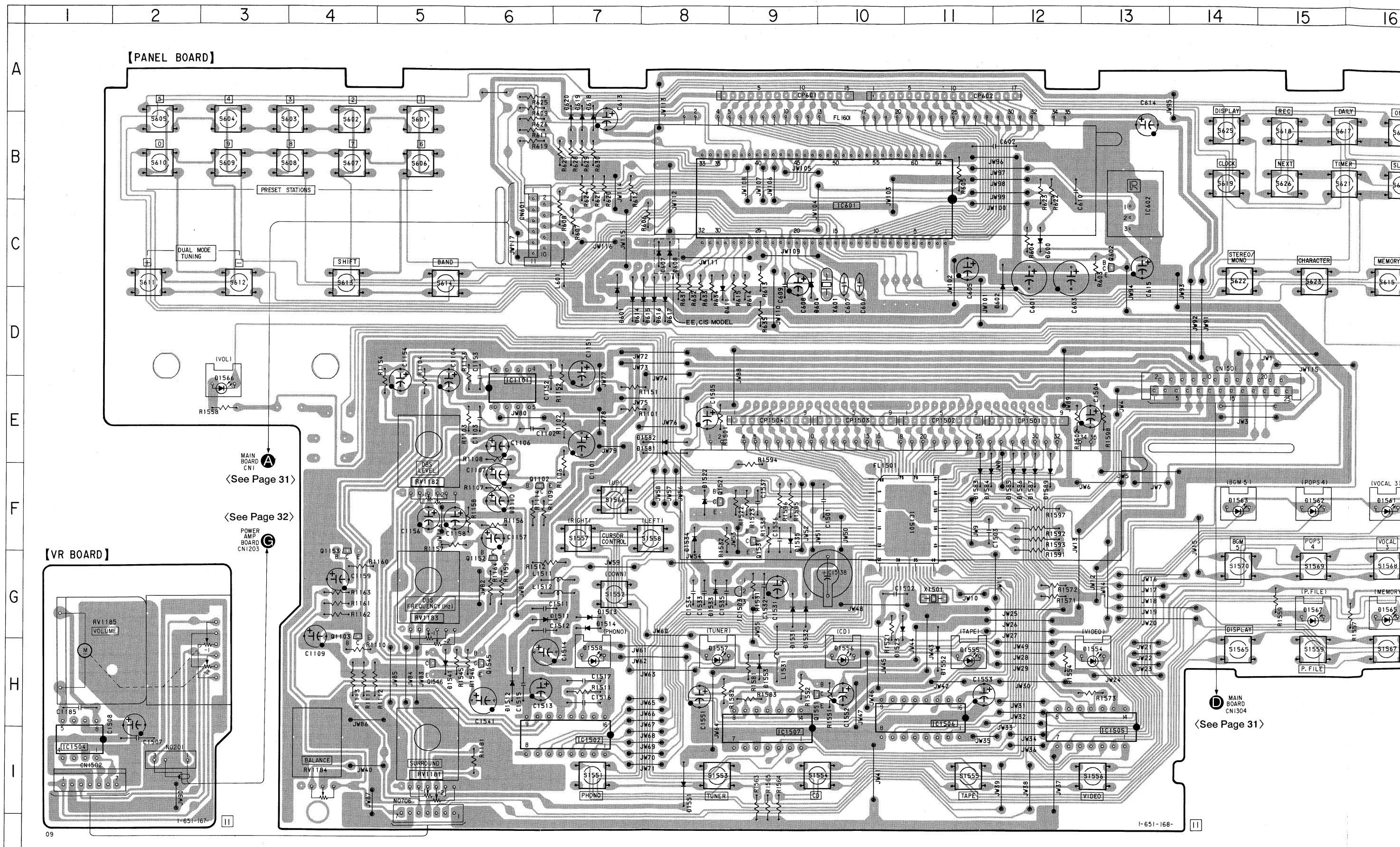




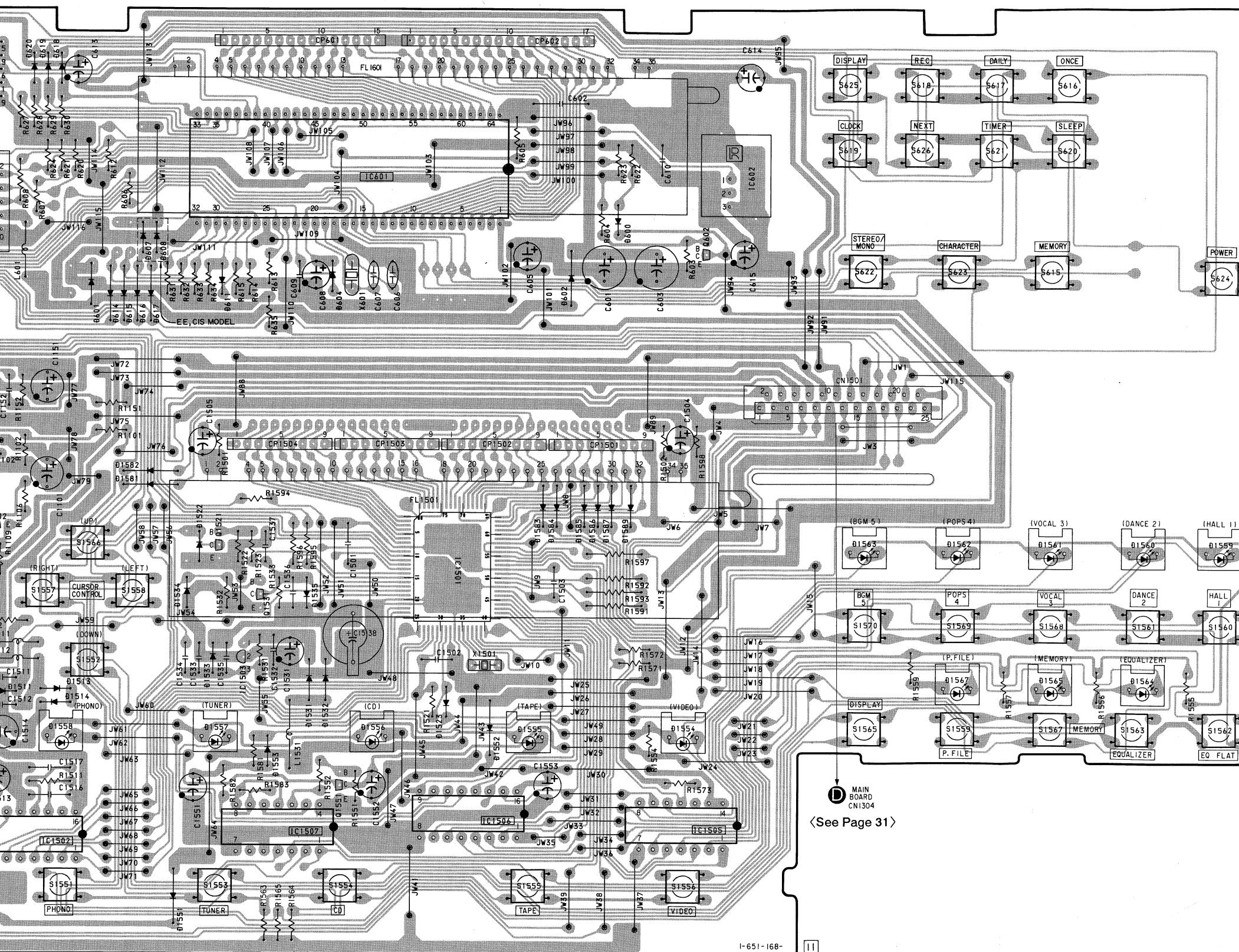


5-15. PRINTED WIRING BOARDS — PANEL (AEP, IT, G MODEL) SECTION —

- See page 12 for Circuit Boards Location.
 - See pages 22, 23 for Semiconductor Lead Layouts.



7 8 9 10 11 12 13 14 15 16 17 18



• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D600	C-12	D1562	F-15
D601	D-7	D1563	F-14
D602	D-12	D1564	G-17
D604	D-9	D1565	G-16
D607	C-8	D1566	E-3
D608	C-8	D1567	G-15
D614	D-7	D1581	E-8
D615	D-8	D1582	E-8
D616	D-8	D1583	F-11
D617	D-8	D1584	F-11
D618	A-7	D1585	F-12
D619	A-7	D1586	F-12
D620	A-7	D1587	F-12
D1511	G-6	D1589	F-12
D1512	H-6		
D1513	G-7	IC602	C-13
D1514	G-7	IC1101	E-6
D1522	F-8	IC1501	F-11
D1523	G-10	IC1502	I-7
D1531	G-9	IC1503	G-9
D1532	G-9	IC1504	I-1
D1533	G-8	IC1505	I-13
D1534	F-8	IC1506	H-11
D1535	F-9	IC1507	I-9
D1541	H-5		
D1551	I-8	Q602	C-13
D1552	H-11	Q1102	F-6
D1553	H-9	Q1103	G-4
D1554	H-13	Q1152	G-6
D1555	H-11	Q1153	G-4
D1556	H-10	Q1521	F-8
D1557	H-8	Q1531	F-9
D1558	H-7	Q1545	H-6
D1559	F-18	Q1546	H-5
D1560	F-17	Q1551	H-10
D1561	F-16		

Note:

- : parts extracted from the component side.
- : Pattern from the side which enable seeing.
- EE : East European model.

5-16. IC PIN FUNCTIONS

• IC101 (CXD2515Q)

No.	Pin Name	I/O	Description
1	SRON	O	Sled drive output
2	SRDR	O	Sled drive output
3	SFON	O	Sled drive output
4	TFDR	O	Tracking drive output
5	TRON	O	Tracking drive output
6	TRDR	O	Tracking drive output
7	TFON	O	Tracking drive output
8	FFDR	O	Focus drive output
9	FRON	O	Focus drive output
10	FRDR	O	Focus drive output
11	FFON	O	Focus drive output
12	VCOO	O	VCO output for analog EFM PLL
13	VCOI	I	VCO output for analog EFM PLL
14	TEST	I	TEST pin connected normally to GND
15	DVss	—	Digital GND
16	TES2	I	TEST pin connected normally to GND
17	TES3	I	TEST pin connected normally to GND
18	PDO	O	Charge-pump output for analog EFM PLL
19	VPCO	O	Charge-pump output for variable pitch PLL
20	VCKI	I	Clock input from variable pitch external VCO
21	AVD2	—	Analog power supply
22	IGEN	I	Power supply pin for operational amplifiers
23	AVS2	—	Analog GND
24	ADII	I	Input pin for A/D converter
25	ADIO	O	Operational amplifier output pin
26	RFDC	I	RF signal input
27	TE	I	Tracking error signal input
28	SE	I	Sled error signal input
29	FE	I	Focus error signal input
30	VC	I	Center voltage input pin
31	FILO	O	Filter output for master PLL
32	FILI	I	Filter input for master PLL
33	PCO	O	Charge-pump output for master PLL
34	CLTV	I	Control voltage input for master VCO
35	AVS1	—	Analog GND
36	RFAC	I	EFM signal input
37	BIAS	I	Asymmetry circuit constant current input
38	ASYI	I	Asymmetry compare voltage input
39	ASYO	O	EFM full swing output
40	AVD1	—	Analog power supply
41	DVDD	—	Digital power supply
42	ASYE	I	Asymmetry circuit ON/OFF
43	PSSL	I	Audio data output mode selection input
44	WDCK	O	48-bit slot D/A interface. Word clock

No.	Pin Name	I/O	Description
45	LRCK	O	48-bit slot D/A interface. LR clock
46	DATA	O	DA 16 output when PSSL = 1. 48-bit slot serial data when PSSL = 0
47	BCLK	O	DA 15 output when PSSL = 1. 48-bit slot data when PSSL = 0
48	64DATA	O	DA 14 output when PSSL = 1. 64-bit slot data when PSSL = 0
49	64BCLK	O	DA 13 output when PSSL = 1. 64-bit slot data when PSSL = 0
50	64LRCK	O	DA 12 output when PSSL = 1. 64-bit slot data when PSSL = 0
51	GTOP	O	DA 11 output when PSSL = 1. GTOP output when PSSL = 0
52	XUGF	O	DA 10 output when PSSL = 1. XUGF output when PSSL = 0
53	XPLCK	O	DA 09 output when PSSL = 1. XPLCK output when PSSL = 0
54	GFS	O	DA 08 output when PSSL = 1. GFS output when PSSL = 0
55	PFCK	O	DA 07 output when PSSL = 1. RFCK output when PSSL = 0
56	C2PO	O	DA 06 output when PSSL = 1. C2PO output when PSSL = 0
57	XRAOF	O	DA 05 output when PSSL = 1. XRAOF output when PSSL = 0
58	MNT3	O	DA 04 output when PSSL = 1. MNT3 output when PSSL = 0
59	MNT2	O	DA 03 output when PSSL = 1. MNT2 output when PSSL = 0
60	MNT1	O	DA 02 output when PSSL = 1. MNT1 output when PSSL = 0
61	MNT0	O	DA 01 output when PSSL = 1. MNT0 output when PSSL = 0
62	XTAI	I	X'tal oscillator circuit input
63	XTAO	O	X'tal oscillator circuit output
64	XTSL	I	X'tal selection input pin
65	DVss	—	Digital GND
66	FSTI	I	2/3 divider output of pins 62,63
67	FSTO	O	2/3 divider output of pins 62,63
68	C4M	O	4.2336MHz output
69	C16M	O	16.9344MHz output
70	MD2	I	Digital-out ON/OFF control pin
71	DOUT	O	Digital-out output pin
72	EMPH	O	Playback disc output in emphasis mode
73	WFCK	O	WFCK output
74	SCOR	O	Sub-code sync output
75	SBSO	O	Sub-P through Sub-W serial output
76	EXCK	I	Clock input for SBS0 read-out
77	SUBQ	O	Sub-Q 80-bit output
78	SQCK	I	Clock input for SQSO read-out
79	MUTE	I	Muting selection pin
80	SENS	O	SENS output
81	XRST	I	System reset
82	DIRC	I	Used in 1-track jump mode
83	SCLK	I	SENS serial data read-out clock
84	DFSW	I	DFCT selection pin
85	ATSK	I	Input pin for anti-shock
86	DATA	I	Serial data input, supplied from CPU
87	XLAT	I	Latch input, supplied from CPU
88	CLOK	I	Serial data transfer clock input, supplied from CPU

No.	Pin Name	I/O	Description
89	COUT	O	Numbers of track counted signal output
90	DVDD	—	Digital power supply
91	MIRR	O	Mirror signal output
92	DFCT	O	Defect signal output
93	FOK	O	Focus OK output
94	FSW	O	Output to select spindle motor output filter
95	MON	O	Output to control ON/OFF of spindle motor
96	MDP	O	Output to control spindle motor servo
97	MDS	O	Output to control spindle motor servo
98	LOCK	O	GFS is sampled by 460Hz. H when GFS is H.
99	SSTP	I	Input signal to detect disc inner most track
100	SFDR	O	Sled drive output

• IC103 (CXD2565M)

No.	Pin Name	I/O	Description
1	INIT	I	Re-synchronizing at rise-up edge of this signal
2	SYSM	I	System muting input
3	ATT	I	Attenuation data input
4	SHIFT	I	Shift clock input
5	LATCH	I	Latch clock input
6	384FSO	O	384fs clock output
7	TEST1	I	Test pin. Fixed to "L" level during normal operation.
8	DVss	—	Digital GND
9	TEST2	I	Test pin. Fixed to "L" level during normal operation.
10	BCK	I	BCK input
11	DATA	I	Data input
12	LRCK	I	LRCK input
13	MUTEL	O	L-ch muting flag output
14	MUTER	O	R-ch muting flag output
15	DVDD1	—	Digital power supply
16	R1 (+)	O	R-ch PLM output-1 (positive phase)
17	AVDDR	—	L-ch analog power supply
18	R2 (+)	O	R-ch PLM output-2 (positive phase)
19	AVssR	—	L-ch analog GND
20	XVDD	—	Master clock power supply
21	XOUT	O	X'tal oscillator output (33.8MHz)
22	XIN	I	X'tal oscillator input (33.8MHz)
23	XVss	—	Master clock GND
24	AVssL	—	L-ch analog GND
25	L2 (+)	O	L-ch PLM output-2 (positive phase)
26	AVDDL	—	L-ch analog power supply
27	L1 (+)	O	L-ch PLM output-1 (positive phase)
28	DVDD2	—	Digital power supply

• IC201 (CXP82316-035Q)

Pin No.	Pin Name	I/O	Function
1	TIMER	—	Connected to GND.
2	BUSIN	I	Audio bus input.
3	+5V	—	Connected to +5V.
4	OPEN	—	
5	OPEN	—	} Not used. (open)
6	BUS OUT	O	Audio bus output.
7	PGML	O	Latch signal output to digital filter (IC103).
8	CLK	O	Serial clock output.
9	SENSE	I	SENSE signal input.
10	DATA	O	Serial data output.
11	SQCK	O	Read out clock output for subcode Q data.
12	SUBQ	I	Subcode Q data input.
13	OPEN	—	Not used. (open)
14	AMUTE	O	Analog muting control signal output.
15	LDON	O	Optical pickup laser diode control output.
16	XLT	O	Serial data latch signal output.
17	—	—	Not used. (open)
18	RV+	O	Remote commander volume +.
19	RV-	O	Remote commander volume -.
20	LDOUT	O	
21	LDIN	O	} Loading motor control signal output.
22	KEY0	I	
23	KEY1	I	} Key input. (S201 to S216)
24 to 27	KEY2 to KEY5	—	Connected to +5V.
28	ADJ/AFADJ	—	ADJ, AFJ test pin.
29	IN/OUTSW	I	Loading IN/OUT switch input.
30	RST	I	Reset signal input.
31	EXTAL	I	Clock input. (4 MHz)
32	XTAL	O	Clock output. (4 MHz)
33	Vss	—	GND
34	ICSW	O	CD power supply control pin.
35 to 41	OPEN	—	Not used. (open)
42 to 62	SEG1 to SEG21	O	FL segment output.
63 to 67	1G to 5G	O	FL grid output.
68	OPEN	—	Not used. (open)
69	6G	O	
70	7G	O	} FL grid output.
71	VFDP (-30V)	—	-30V pin for FL display tube.
72	VDD (+5V)	—	
73	—	—	} +5V pin.
74	SEL1	—	
75	IN PORT	—	
76	IN PORT	—	
77	IN PORT	—	
78	SCOR	I	Read out timing signal input for subcode Q data.
79	SEL2	—	Connected to GND.
80	SEL3	—	Connected to +5 V.

• IC601 System Control (μPD78043GF-079 (054)-3B9) (AEP, G, IT Model)

Pin No.	Pin Name	I/O	Function
1	T6	O	FL tube digit output
2	T5	O	
3	T4	O	
4	T3	O	
5	T2	O	
6	T1	O	
7	T0	O	
8	VDD	-	System power supply (+5V)
9	RDS CLOCK	I	RDS clock input
10	—	I	Nut used. (Connected to GND)
11	RDS DATA	I	RDS data input
12	RDS RESET	O	RDS reset output
13	LATCH	O	PLL latch output
14	CLOCK	O	PLL clock output
15	DATA OUT	O	PLL data output
16	DATA IN	I	PLL data (IF count) input
17	RESET	I	System reset input
18	TUNED	I	Tuned (Auto stop) input
19	STEREO	I	Stereo input
20	A/D GND	-	Ground for A/D converter
21	—	I	Not used. (Connected to GND)
22	—	I	
23	—	I	
24	—	I	
25	—	I	
26	KEY IN	I	Key input
27	KEY IN	I	
28	KEY IN	I	
29	A/D +5V	-	Analog power supply for A/D converter (+5V)
30	A/D REF +5V	-	Reference voltage input for A/D converter (+5V)
31	—	I	Not used. (Connected to GND)
32	—	-	Not used. (open)
33	SYS GND	-	System ground terminal
34	X1	I	Main system clock (4.194304 MHz)
35	X2	O	Main system clock
36	RDS EON OUT	O	RDS EON output
37	F MONI	O	F monitor output (2048 Hz)
38	—	I	Not used. (Connected to GND)
39	—	I	
40	—	I	

Pin No.	Pin Name	I/O	Function
41	—	I	
42	—	I	{ Not used. (Connected to GND)
43	CD BUSY	I	CD busy input
44	RDS START	I	RDS data start input
45	SIRCS	I	SIRCS input
46	AUB IN	I	AUB input
47	INTPO	I	Power failure detection input
48	GND	—	Internal connection (Connected to GND)
49	AUB OUT	O	AUB output
50	MUTING	O	Muting output (Tuner)
51	RELAY	O	Relay output (Power)
52	VDD	—	System power supply (+5V)
53	—	I	
54	—	I	{ Not used. (Connected to GND)
55	—	I	
56	EON	I	Initial setting input (EON)
57	DIMMER	I	Initial setting input (EON active)
58	AUTO TUN	I	Initial setting input (AUTO TUN)
59	VERSION	I	
60	VERSION	I	{ Initial setting input (the destination)
61	S15	O	
62	S14	O	
63	S13	O	
64	S12	O	
65	S11	O	
66	S10	O	
67	S9	O	
68	S8	O	
69	S7	O	
70	S6	O	
71	-30V	—	Negative power supply for the FL tube
72	S5	O	
73	S4	O	
74	S3	O	
75	S2	O	
76	S1	O	
77	S0	O	
78	T9	O	
79	T8	O	
80	T7	O	{ FL tube digit output

- IC601 System Control (TMP47C1270AN-H227) (UK, EE, CIS Model)

Pin No.	Pin Name	I/O	Function
1	VKK	—	-29V power supply for driving fluorescent display.
2	S15	O	
3	S14	O	
4	S13	O	
5	S12	O	
6	S11	O	
7	S10	O	
8	S9	O	
9	S8	O	
10	S7	O	
11	S6	O	
12	S5	O	
13	S4	O	
14	K00	I	
15	K01	I	
16	K02	I	
17	K03	I	
18	TEST	—	Test terminal
19	X IN	I	
20	X OUT	O	System clock (8.388608 Hz) connected to crystal oscillator.
21	RESET	I	System reset input
22	HOLD	I	
23	—	—	IF count NG (F monitor) output
24	R60	I	Key input
25	—	—	Not used
26	R62	I	
27	R63	I	
28	P10	O	
29	P11	O	
30	P12	O	
31	P13	O	
32	GND	—	GND
33	P20	O	
34	P21	O	
35	P22	O	
36	—	—	Not used
37	RELAY	O	RELAY output
38	MUTING	O	MUTING output
39	TUNED IN	I	TUNED input
40	STEREO IN	I	STEREO input

Pin No.	Pin Name	I/O	Function
41	SIRCS	I	SIRCS input
42	AUB OUT	O	Audio bus output
43	AUB IN	I	Audio bus input
44	CE	O	Chip select to tuner PLL IC (LC7218)
45	SI	I	Serial data from tuner PLL IC (LC7218)
46	SO	O	Serial data to tuner PLL IC (LC7218)
47	SCK	O	Serial clock to tuner PLL IC (LC7218)
48	—	—	Not used
49	—	—	
50	1G	O	Fluorescent display driving
51	2G	O	
52	3G	O	
53	4G	O	
54	5G	O	
55	6G	O	
56	7G	O	
57	8G	O	
58	9G	O	
59	10G	O	
60	S0	O	
61	S1	O	
62	S2	O	
63	S3	O	
64	VDD	—	+5V power supply

Pin No.	Pin Name	I/O	Function
41	SIRCS	I	SIRCS input
42	AUB OUT	O	Audio bus output
43	AUB IN	I	Audio bus input
44	CE	O	Chip select to tuner PLL IC (LC7218)
45	SI	I	Serial data from tuner PLL IC (LC7218)
46	SO	O	Serial data to tuner PLL IC (LC7218)
47	SCK	O	Serial clock to tuner PLL IC (LC7218)
48	—	—	Not used
49	—	—	
50	1G	O	Fluorescent display driving
51	2G	O	
52	3G	O	
53	4G	O	
54	5G	O	
55	6G	O	
56	7G	O	
57	8G	O	
58	9G	O	
59	10G	O	
60	S0	O	
61	S1	O	
62	S2	O	
63	S3	O	
64	VDD	—	+5V power supply

• IC902 Deck Controller (M50964-261FP)

Pin No.	Pin Name	I/O	Function																																				
1	G	—	GND																																				
2	G	—																																					
3	G	—																																					
4	—	—	+5V																																				
5	NORM/HIGH	—	Tape speed "H"=High speed "L"=Normal speed																																				
6	B HALF	I	Deck B record prevention claw A, B detection input (Analog) <table border="1" data-bbox="579 481 1095 593"> <tr> <th>Voltage (V)</th> <th>1V</th> <th>1.9V</th> <th>2.8V</th> <th>3.9V</th> <th>5V</th> </tr> <tr> <td>Half</td> <td>ON</td> <td>ON</td> <td>ON</td> <td>ON</td> <td>OFF</td> </tr> <tr> <td>E. PROOF A</td> <td>OFF</td> <td>ON</td> <td>OFF</td> <td>ON</td> <td>OFF</td> </tr> <tr> <td>E. PROOF B</td> <td>ON</td> <td>ON</td> <td>OFF</td> <td>OFF</td> <td>OFF</td> </tr> </table>	Voltage (V)	1V	1.9V	2.8V	3.9V	5V	Half	ON	ON	ON	ON	OFF	E. PROOF A	OFF	ON	OFF	ON	OFF	E. PROOF B	ON	ON	OFF	OFF	OFF												
Voltage (V)	1V	1.9V	2.8V	3.9V	5V																																		
Half	ON	ON	ON	ON	OFF																																		
E. PROOF A	OFF	ON	OFF	ON	OFF																																		
E. PROOF B	ON	ON	OFF	OFF	OFF																																		
7	KEY Y	I	KEY input <table border="1" data-bbox="579 660 1214 750"> <tr> <th>Voltage (V)</th> <th>0</th> <th>0.3</th> <th>0.7</th> <th>1.2</th> <th>1.7</th> <th>2.3</th> <th>2.8</th> <th>3.4</th> <th>4.0</th> <th>4.5</th> <th>5.0</th> </tr> <tr> <td>KEY Y</td> <td>B ■</td> <td>B □</td> <td>B ▶</td> <td>B ◀</td> <td>A ◀</td> <td>A ▶</td> <td></td> <td></td> <td></td> <td>RELAY</td> <td>OFF</td> </tr> <tr> <td>KEY X</td> <td>A ■</td> <td>A ▶</td> <td>A ◀</td> <td>B ◀</td> <td>B ▶</td> <td>B ●</td> <td>DUB</td> <td>CD</td> <td></td> <td></td> <td></td> </tr> </table>	Voltage (V)	0	0.3	0.7	1.2	1.7	2.3	2.8	3.4	4.0	4.5	5.0	KEY Y	B ■	B □	B ▶	B ◀	A ◀	A ▶				RELAY	OFF	KEY X	A ■	A ▶	A ◀	B ◀	B ▶	B ●	DUB	CD			
Voltage (V)	0	0.3	0.7	1.2	1.7	2.3	2.8	3.4	4.0	4.5	5.0																												
KEY Y	B ■	B □	B ▶	B ◀	A ◀	A ▶				RELAY	OFF																												
KEY X	A ■	A ▶	A ◀	B ◀	B ▶	B ●	DUB	CD																															
8	KEY X	I																																					
9	AMS IN	I	AMS signal input																																				
10	L MUTE	O	Line mute output																																				
11	R MUTE	O	Mute output																																				
12	RELAY (B MD)	O	REC/PB change relay output																																				
13	RP	O	Dolby IC REC/PB select output																																				
14	EQ70	O	Playback EQ output for playing deck (Not used)																																				
15	SEL A/B	O	Dolby IC PB input Deck A/B select output																																				
16	AMS MUTE	O	AMS mute output																																				
17	AU BUS	I	AUDIO BUS input																																				
18	BIAS	O	Bias oscillation output																																				
19	AUB OUT	O	AUDIO BUS output																																				
20	A BUS	I	AUDIO BUS normal input																																				
21	NC	—	Not used																																				
22	NC	—	GND																																				
23	NC	—																																					
24	Vss	—																																					
25	RESET	I	Microcomputer reset input																																				
26	XIN	I	Clock input (4 MHz)																																				
27	XOUT	O	Clock output (4 MHz)																																				
28	φ	O	Not used (open)																																				
29	Vss	—	GND																																				
30	PW IN	I																																					
31	A STOP	I	Deck A STOP switch input																																				
32	A HALF	I	Deck A Half switch input																																				
33	A SHUT	I	Deck A Reel table signal input																																				
34	A70 U	I	GND																																				
35	B STOP	I	Deck B STOP switch input																																				

Pin No.	Pin Name	I/O	Function
36	B SHUT	I	Deck B Reel table signal input
37	B70 U	I	+5V
38	NC	-	Not used
39	ARM 3	O	Deck A Reel Motor control out
40	ARM 2	O	
41	ARM 1	O	
42	BRM 3	O	Deck B Reel Motor control out
43	BRM 2	O	
44	BRM 1	O	
45	H/L	O	Capstan motor speed select
46	A CM	O	A Capstan motor ON/OFF
47	B CM	O	B Capstan motor ON/OFF
48	BS/ASCH	I	Deck B Reel table/BS signal input
49	AP/BSCH	I	Deck A Reel table/AP signal input
50	A REV	O	Deck A RVS LED output
51	A FWD	O	Deck A FWD LED output
52	A PLAY	O	Deck B RVS/FWD LED control output (Not used)
53	DUB H	O	High Speed Dubbing LED output
54	DUB N	O	Normal Speed Dubbing LED output
55	NC	-	Not used
56	CD SYNC	O	Auto CD Syncro LED output
57	B REV	O	Deck B RVS LED output
58	B FWD	O	Deck B FWD LED output
59	B PLAY	O	Deck B RVS/FWD LED control output (Not used)
60	B PAUSE	O	Deck B PAUSE LED output
61	B REC	O	Deck B REC LED output
62	PASS	O	PASS amplifier switch output
63	TEST	I	Electrical adjustment test mode setting
64	NC	-	Not used
65	Vss	-	GND
66	NC	-	Not used
67	Vcc	-	POWER 5 ± 0.5V
68	AVss	-	Analog system GND
69	VREF	I	Analog system reference voltage input
70	DAC	-	GND
71	-	-	
72	-	-	

[TEST MODE]

When making pin ⑥ low (connect pin ① of CN904 to ground with jumper wire), following function operates.

1. Source monitor

Release the line mute while recording.

• IC1501 TA Control (μPD78042GF-056-3B9)

Pin No.	Pin Name	I/O	Function
1	7G	O	FL tube digit output
2	6G	O	
3	5G	O	
4	4G	O	
5	3G	O	
6	2G	O	
7	1G	O	
8	VDD	—	Power supply pin (+5V)
9	K3	I	Key scan input
10	K2	I	
11	K1	I	
12	DBS	O	Not used. (open)
13	SURROUND	O	
14	AUB OUT	O	Audio bus output
15	CLK (GEQ)	O	Serial clock line (IC1005 NJU7305L) output
16	DAT (GEQ)	O	Serial data line (IC1005 NJU7305L) output
17	RES	I	Reset. "L": reset
18	LINE MUT (OD)	O	Line mute output
19	MULTI (OD)	O	Multi plex ON/OFF. "L": on
20	AVss	I	Ground pin
21	*	I	Not used. (Connected to GND)
22	F7	I	Frequency for speaker input
23	F6	I	
24	F5	I	
25	F4	I	
26	F3	I	
27	F2	I	
28	F1	I	
29	AVDD	—	Power supply pin (+5V)
30	AVREF	—	A/D reference voltage input
31	AUB IN	I	Audio bus input
32	*	—	Not used. (open)
33	Vss	—	Ground pin
34	X1	I	Connected to system clock (4.19 MHz) oscillator.
35	X2	O	
36	FNC-A	O	Function LED control output
37	FNC-B	O	
38	FNC-G	O	
39	SEL-A	O	Selection LED control output
40	SEL-B	O	

Pin No.	Pin Name	I/O	Function
41	SEL-G	O	Selection LED control output
42	MULTI	O	Multi plex LED output
43	VOL LED	O	Volume LED output
44	VOL UP	O	Volume up output
45	VOL DOWN	O	Volume down output
46	P FILE	O	P.file LED output
47	AC CUT IN	I	AC cut input
48	IC (Vss)	-	Not used. (Connected to GND)
49	C (OD)	O	Function control output
50	B (OD)	O	
51	A (OD)	O	
52	VDD	-	Power supply pin (+5V)
53	MEMORY	O	Memory LED output
54	EFFECT	O	Equalizer LED output
55	#5	O	#5 LED output
56	SURROUND	I	Not used. (Connected to GND)
57	CS (GEQ)	O	CS line (IC1005 NJU7305L) output
58	(INPUT)	I	Not used. (Connected to GND)
59	S15	O	FL tube segment output
60	S14	O	
61	S13	O	
62	S12	O	
63	S11	O	FL tube segment output (key scan output)
64	S10	O	
65	S9	O	
66	S8	O	
67	S7	O	FL tube segment output
68	S6	O	
69	S5	O	
70	S4	O	
71	V LOAD	-	Power supply pin (-33V) for pull down register
72	S3	O	FL tube segment output
73	S2	O	
74	S1	O	
75	13G	O	FL digit output
76	12G	O	
77	11G	O	
78	10G	O	
79	9G	O	
80	8G	O	

SECTION 6

EXPLODED VIEWS

NOTE:

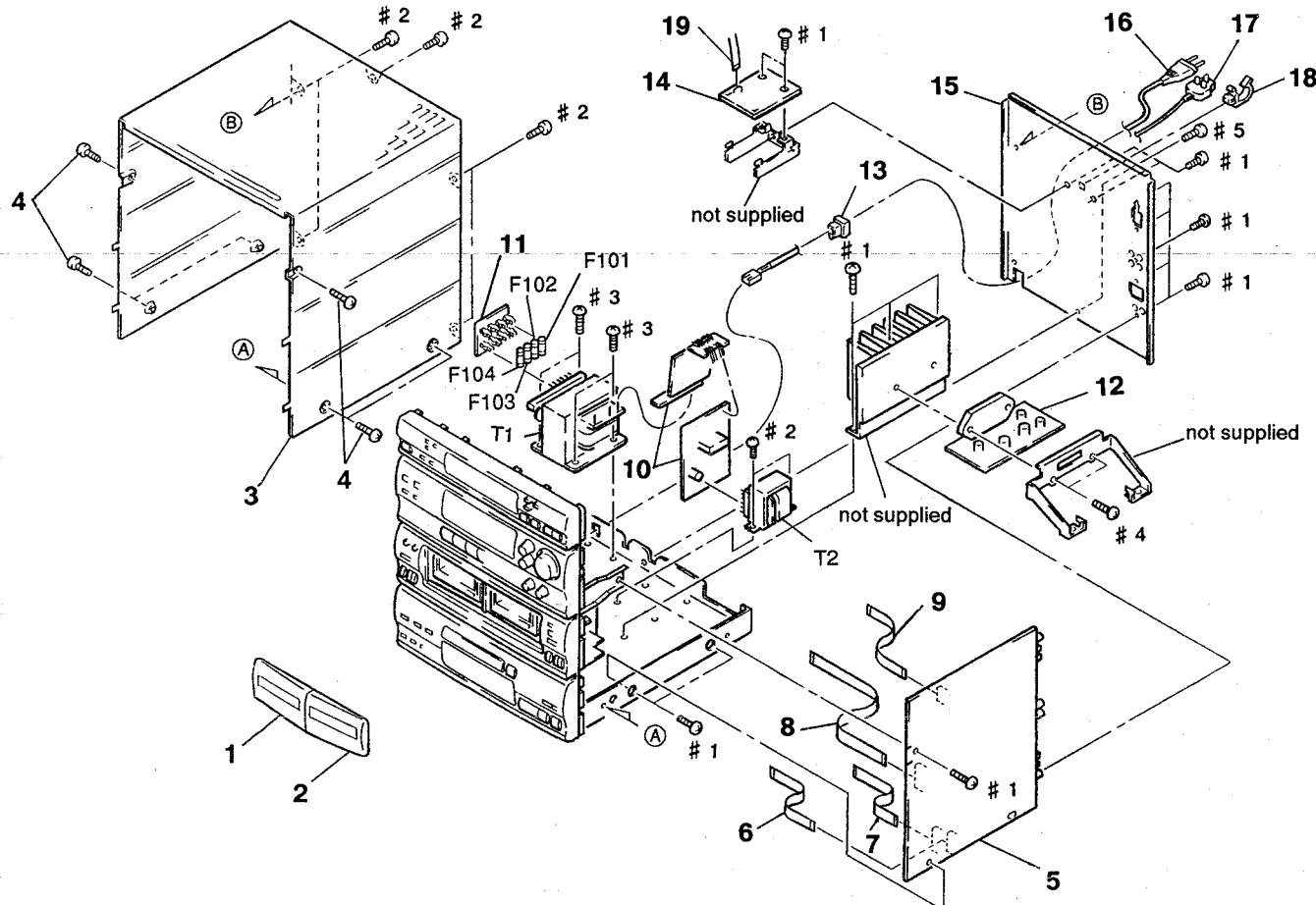
- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- Color Indication of Appearance Parts Example: KNOB, BALANCE (WHITE) . . . (RED)

↑ ↑
Parts color Cabinet's color

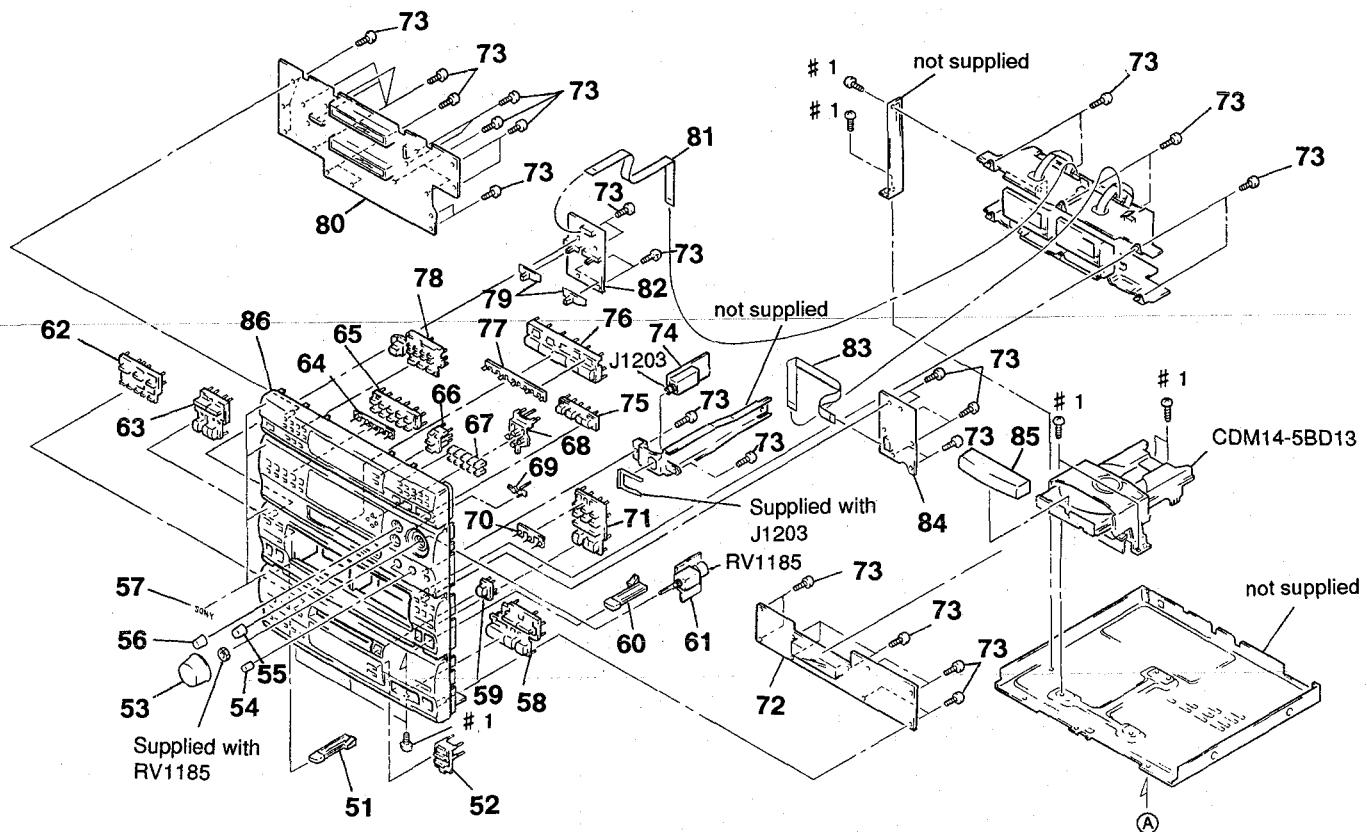
The components identified by mark \triangle or dotted line with mark \triangle are critical for safety.
Replace only with part number specified.

6-1. CABINET SECTION



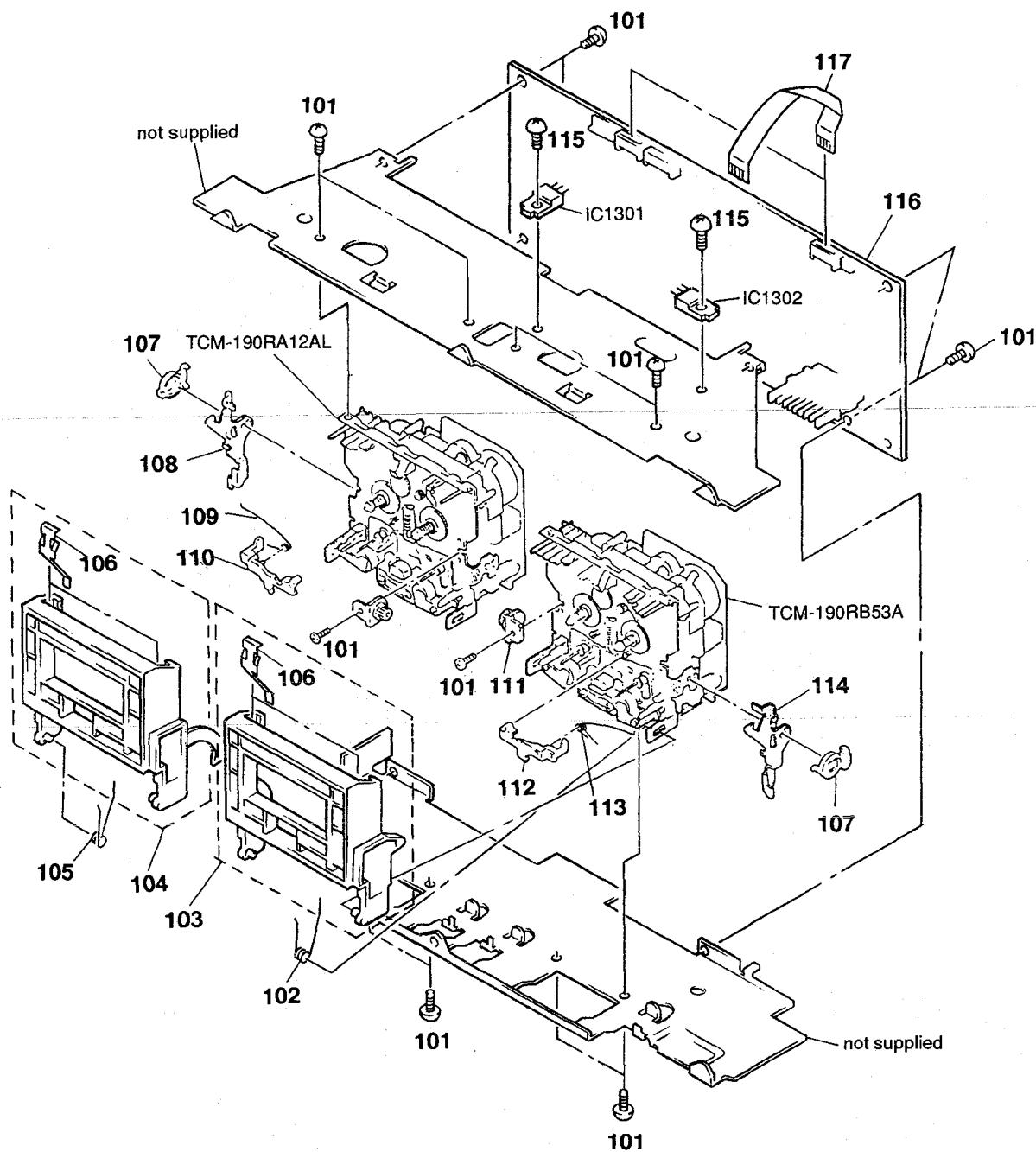
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	A-4353-635-A	LID (A) ASSY, CASSETTE		* 12	A-4369-173-A	POWER AMP BOARD, COMPLETE (AEP, EE, CIS)	
2	A-4353-636-A	LID (B) ASSY, CASSETTE		* 12	A-4369-305-A	POWER AMP BOARD, COMPLETE (G, IT)	
* 3	4-962-725-31	CASE		* 13	3-703-244-00	BUSHING (2104), CORD	
4	3-363-099-01	SCREW (CASE 3 TP2)		* 14	A-4369-815-A	POLAR BOARD, COMPLETE (CIS)	
* 5	A-4369-161-A	MAIN BOARD, COMPLETE (UK)		* 15	4-962-744-11	PANEL, BACK (AEP)	
* 5	A-4369-300-A	MAIN BOARD, COMPLETE (AEP)		* 15	4-962-744-41	PANEL, BACK (G)	
* 5	A-4369-306-A	MAIN BOARD, COMPLETE (IT)		* 15	4-962-744-51	PANEL, BACK (IT)	
* 5	A-4369-311-A	MAIN BOARD, COMPLETE (EE)		* 15	4-962-744-71	PANEL, BACK (UK)	
* 5	A-4369-901-A	MAIN BOARD, COMPLETE (G)		* 15	4-962-744-61	PANEL, BACK (EE, CIS)	
* 5	A-4369-905-A	MAIN BOARD, COMPLETE (CIS)		△16	1-575-651-11	CORD, POWER (AEP, G, IT, EE, CIS)	
6	1-765-176-11	WIRE (FLAT TYPE) (26 CORE)		△17	1-696-570-21	CORD, POWER (UK)	
* 7	1-696-674-11	WIRE (FLAT TYPE) (23 CORE)		* 18	4-949-235-11	HOOK	
8	1-690-824-11	WIRE (FLAT TYPE) (25 CORE)		19	1-690-590-31	WIRE (FLAT TYPE) (13 CORE) (CIS)	
9	1-575-906-11	WIRE, FLAT TYPE (15 CORE) (AEP, G, IT)		△F101	1-532-286-00	FUSE (T2.5A)	
9	1-590-459-11	WIRE, FLAT TYPE (11 CORE) (UK, EE, CIS)		△F102	1-532-286-00	FUSE (T2.5A)	
* 10	A-4369-159-A	POWER BOARD, COMPLETE (UK)		△F103	1-532-299-00	FUSE (T5.0A)	
* 10	A-4369-172-A	POWER BOARD, COMPLETE (AEP, G, IT)		△F104	1-532-299-00	FUSE (T5.0A)	
* 10	A-4371-009-A	POWER BOARD, COMPLETE (EE, CIS)		△T1	1-423-927-11	TRANSFORMER, POWER (AEP, G, IT, EE, CIS)	
* 11	1-652-388-11	FUSE BOARD (AEP, G, IT)		△T1	1-426-782-11	TRANSFORMER, POWER (UK)	
* 11	1-652-389-11	FUSE BOARD (UK, EE, CIS)		△T2	1-423-929-11	TRANSFORMER, POWER (SUB) (AEP, G, IT)	
* 12	A-4369-160-A	POWER AMP BOARD, COMPLETE (UK)		△T2	1-423-930-11	TRANSFORMER, POWER (SUB) (UK, EE, CIS)	

6-2. FRONT PANEL SECTION



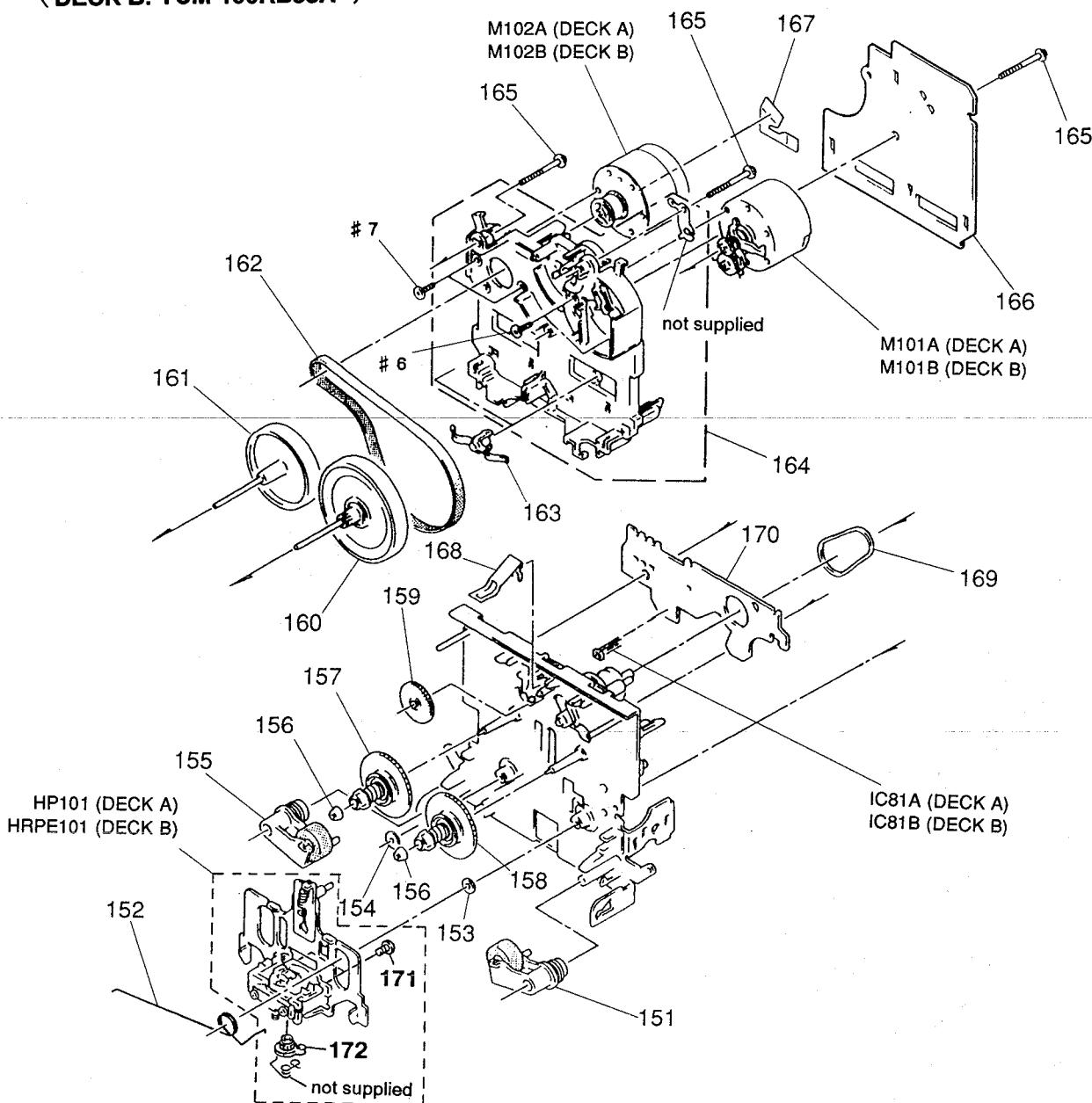
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	4-962-709-01	BUTTON (EJECT) (L)		* 72	A-4369-167-A	CD PANEL BOARD, COMPLETE (AEP, G, IT, EE, CIS)	
52	4-962-694-01	BUTTON (CC)		73	4-951-620-01	SCREW (2.6X8), +BVTP	
53	4-955-635-11	KNOB (V)		* 74	1-651-166-11	H. P BOARD	
54	4-955-744-01	KNOB (BA)		75	4-962-661-11	BUTTON (BAND)	
55	4-962-703-11	KNOB (SUR)		76	4-962-681-11	BUTTON (FU)	
56	4-962-703-41	KNOB (SUR)		77	4-962-680-11	INDICATOR (FU)	
57	4-962-708-21	EMBLEM (4-A), SONY		78	4-962-689-01	BUTTON (TIMER)	
58	4-962-667-31	BUTTON (CD)		79	4-962-707-01	KNOB, SLIDE	
59	4-962-665-11	BUTTON (OPEN)		* 80	A-4369-156-A	PANEL BOARD, COMPLETE (UK)	
60	4-962-710-01	BUTTON (EJECT) (R)		* 80	A-4369-169-A	PANEL BOARD, COMPLETE (AEP)	
* 61	1-651-167-11	VR BOARD		* 80	A-4369-303-A	PANEL BOARD, COMPLETE (IT)	
62	4-962-693-01	BUTTON (PROG)		* 80	A-4369-309-A	PANEL BOARD, COMPLETE (EE)	
63	X-4944-378-1	DECK ASSY, BUTTON (A)		* 80	A-4369-899-A	PANEL BOARD, COMPLETE (G)	
64	4-962-677-11	INDICATOR (SELECT 5)		* 80	A-4369-903-A	PANEL BOARD, COMPLETE (CIS)	
65	X-4944-523-1	BUTTON (EFFECT) ASSY		81	1-751-025-11	WIRE (FLAT TYPE) (9 CORE)	
66	4-962-690-01	BUTTON (RDS) (AEP, G, IT)		* 82	1-650-780-11	PANEL (A) BOARD	
67	4-962-676-11	BUTTON (PRESET)		83	1-751-210-11	WIRE (FLAT TYPE) (13 CORE)	
68	4-962-692-01	BUTTON (CURSOR)		* 84	1-650-781-11	PANEL (B) BOARD	
69	4-962-682-11	INDICATOR (VO)		85	4-962-674-11	PANEL, LOADING	
70	4-962-766-01	INDICATOR (DUB)		86	X-4944-681-1	PANEL ASSY, FRONT (UK, EE, CIS)	
71	X-4944-522-1	DECK ASSY, BUTTON (B)		86	X-4944-682-1	PANEL ASSY, FRONT (AEP, IT, G)	
* 72	A-4369-154-A	CD PANEL BOARD, COMPLETE (UK)					

6-3. MECHANISM DECK CHASSIS SECTION



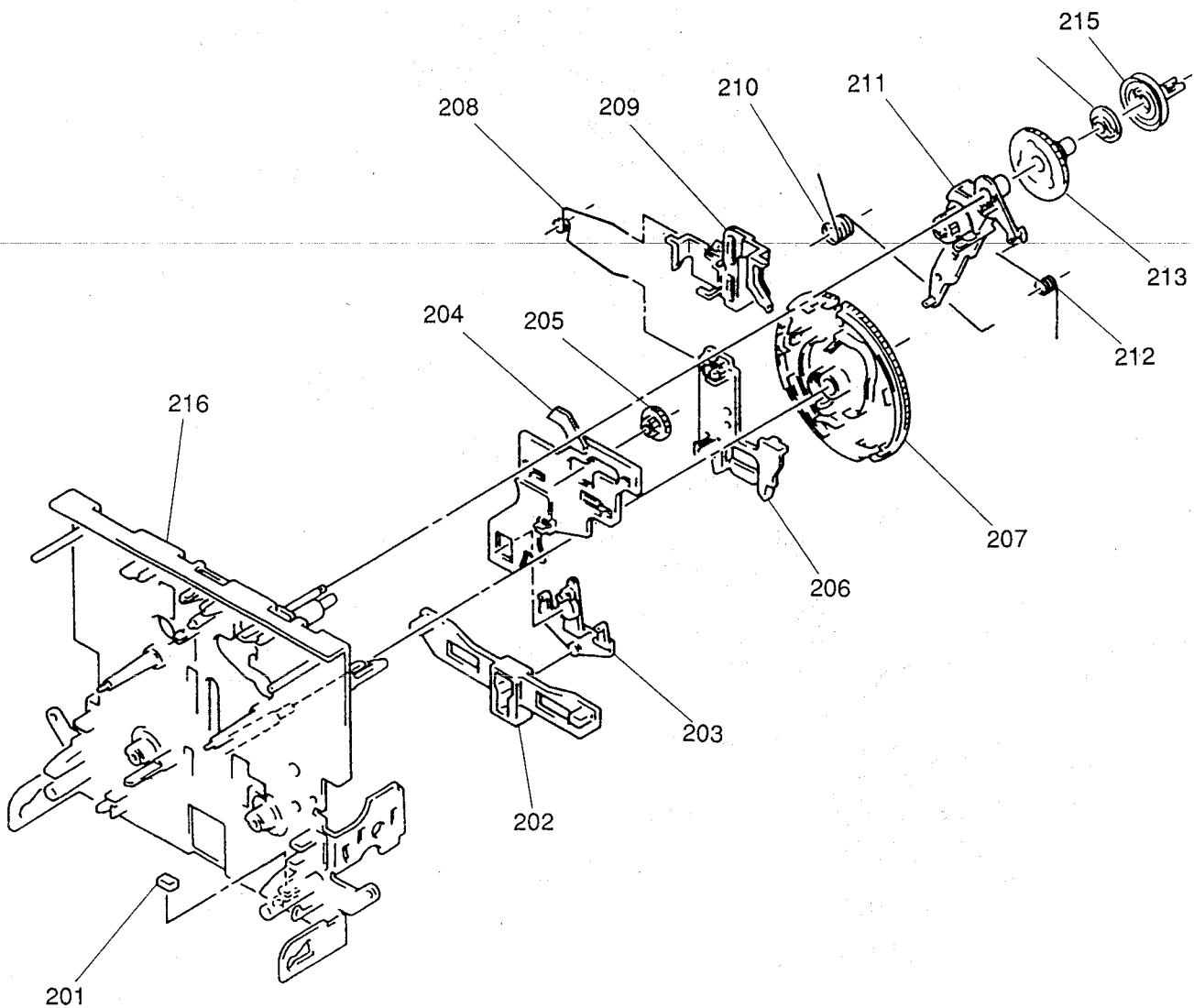
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
101	4-928-635-01	SCREW, +BV (2.6X8) TAPPING		111	3-354-963-01	DAMPER	
102	3-354-960-01	SPRING (LOADING R), TORSION		112	3-354-956-01	LEVER (EJ SAFTY LEVER R)	
103	A-4325-164-A	HOLDER (R) ASSY, CASSETTE		113	3-354-962-01	SPRING (EJ SAFTY SPRING R)	
104	A-4325-163-A	HOLDER (L) ASSY, CASSETTE		* 114	3-354-954-01	LEVER (LOCK LEVER R)	
105	3-354-959-01	SPRING (LOADING L), TORSION		115	4-951-620-01	SCREW (2.6X8), +BVTP	
106	3-308-823-11	DETENT, CASSETTE		* 116	A-4365-942-A	MAIN TC BOARD, COMPLETE (AEP, G, IT, EE, CIS)	
107	3-354-957-01	JOINT (LOCK LEVER)		* 116	A-4369-150-A	MAIN TC BOARD, COMPLETE (UK)	
* 108	3-354-953-01	LEVER (LOCK LEVER L)		117	1-590-485-11	WIRE, FLAT TYPE (7 CORE)	
109	3-354-961-01	SPRING (EJ SAFTY SPRING L)		IC1301	8-759-604-84	IC M5F7806L	
110	3-354-955-01	LEVER (EJ SAFTY LEVER L)		IC1302	8-759-604-90	IC M5F7907L	

6-4. MECHANISM DECK SECTION-1
(DECK A: TCM-190RA12AL)
(DECK B: TCM-190RB53A)



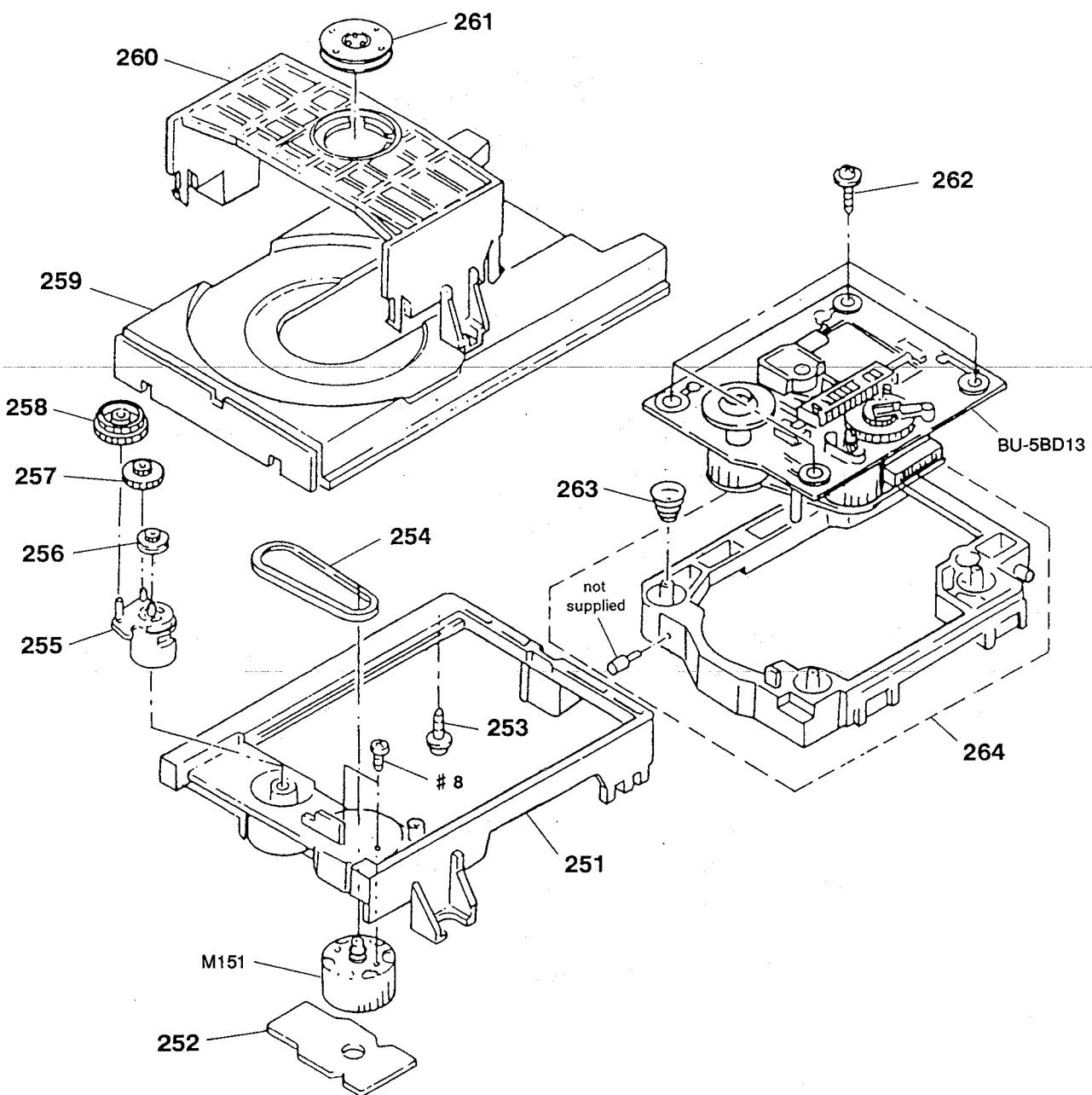
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
151	X-3366-047-1	LEVER (PINCH F) ASSY		* 166	A-2007-134-A	MD-B BOARD, COMPLETE (RB53A)	
152	3-907-362-01	SPRING, TORSION		167	1-638-983-11	MOTOR FLEXIBLE BOARD	
153	3-356-713-01	WASHER		168	3-359-430-01	SPRING(CASSETTE RETAINER), LEAF	
154	3-356-714-01	WASHER		169	3-359-466-01	BELT (FR), SQUARE	
155	X-3366-048-1	LEVER (PINCH R) ASSY					
156	3-913-841-01	CAP (REEL)		* 170	1-638-020-11	LEAF SW-A BOARD (DECK A)	
157	X-3366-971-1	TABLE ASSY (B), REEL		* 170	1-638-020-11	LEAF SW-A BOARD (DECK B)	
158	X-3366-970-1	TABLE ASSY, REEL		171	3-388-848-01	SCREW (P2X6) (B TIGHT)	
159	3-359-424-01	GEAR (REV GEAR)		172	3-359-405-11	GEAR (CENTER)	
160	X-3367-629-1	FLYWHEEL (FWD) ASSY		HP101	A-2003-757-A	BASE ASSY, HEAD (DECK A)	
161	X-3367-630-2	FLYWHEEL (REV) ASSY		HRPE101A-2003-930-A	BASE ASSY, HEAD (DECK B)		
162	3-359-417-01	BELT (FLAT), CAPSTAN		IC81A	8-749-924-10	PHOTO REFLECTOR NJ5165-B (DECK A)	
163	3-575-321-00	RETAINER, THRUST, CAPSTAN		IC81B	8-749-924-10	PHOTO REFLECTOR NJ5165-B (DECK B)	
164	3-359-436-11	BASE (THRUST RETAINER), FITTING		M101A	X-3363-501-1	MOTOR ASSY (REEL) (DECK A)	
165	3-359-414-01	SCREW (+PTPWH 2X23)		M101B	X-3363-501-1	MOTOR ASSY (REEL) (DECK B)	
* 166	A-2006-623-A	MD-A BOARD, COMPLETE (RA12AL)		M102A	X-3365-377-1	MOTOR ASSY (CAPSTAN) (DECK A)	
				M102B	X-3365-377-1	MOTOR ASSY (CAPSTAN) (DECK B)	

6-5. MECHANISM DECK SECTION-2 (DECK A: TCM-190RA12AL) (DECK B: TCM-190RB53A)



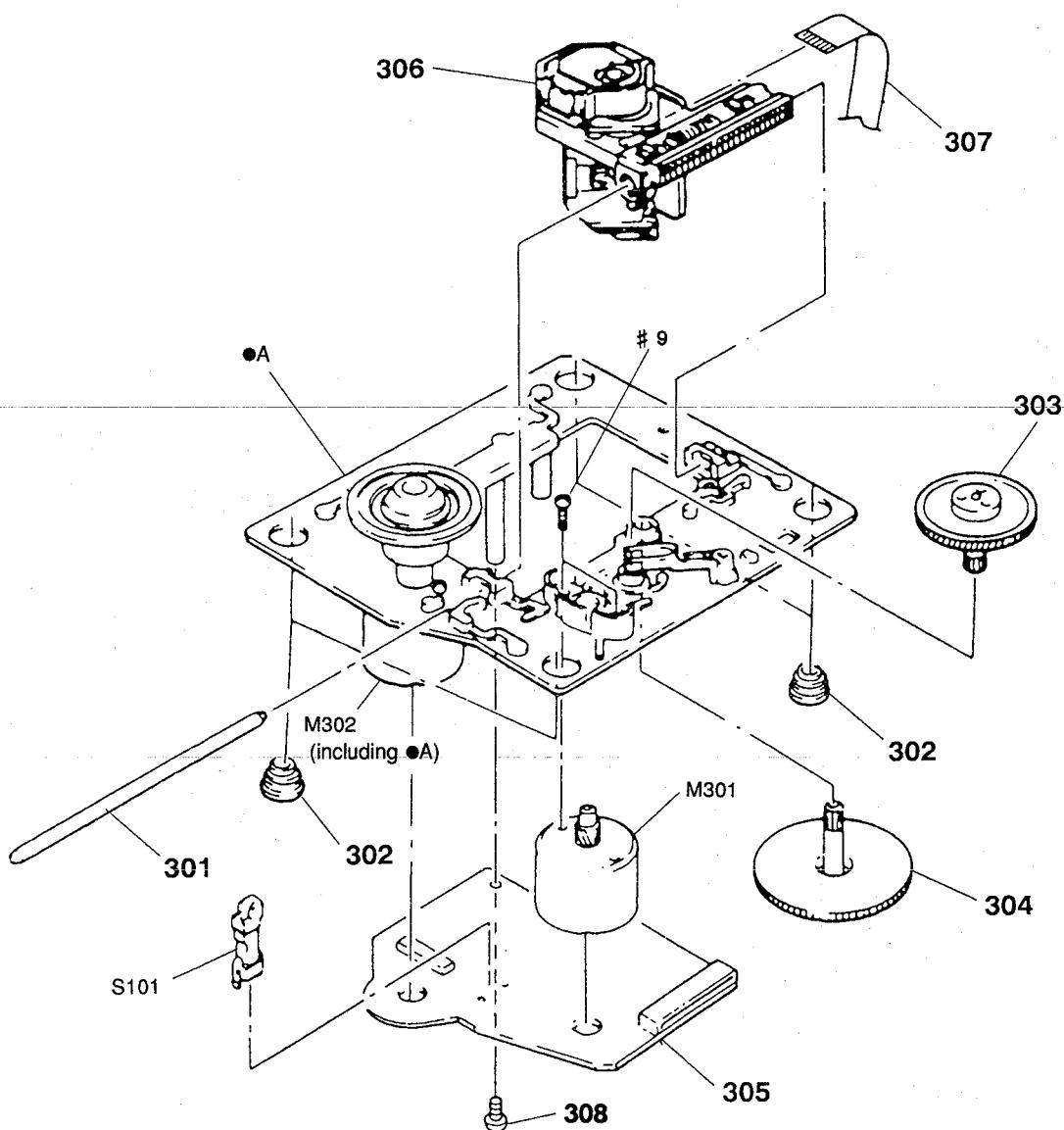
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
201	3-359-469-01	SPACER		209	3-359-429-11	SLIDER (BRAKE PLATE) (DECK B)	
* 202	3-359-425-01	SLIDER (REVERSE SLIDER)		210	3-359-456-01	SPRING (TRIGGER SPRING), TORSION	
203	3-359-426-01	LEVER (REVERSE LEVER)		211	X-3366-569-1	ARM ASSY, FR	
* 204	3-359-415-01	SLIDER (TRIGGER SLIDER) (DECK A)		212	3-359-453-01	SPRING (FR ARM), TORSION	
204	3-359-415-11	SLIDER (TRIGGER SLIDER) (DECK B)		213	3-359-419-11	GEAR (FR GEAR)	
205	3-359-448-01	GEAR (TRIGGER)		214	3-359-421-11	CLUTCH (REEL DISK)	
* 206	3-359-427-01	SLIDER (LEVER SLIDER)		215	3-359-418-11	PULLEY (FR PULLEY)	
207	3-359-420-01	GEAR (CAM GEAR)		216	X-3359-415-1	CHASSIS ASSY, MECHANICAL (DECK A)	
208	3-359-454-01	SPRING, TORSION		216	X-3363-790-1	CHASSIS ASSY, MECHANICAL (DECK B)	
209	3-359-429-01	SLIDER (BRAKE PLATE) (DECK A)					

**6-6. CD MECHANISM SECTION
(CDM14-5BD13)**



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
251	4-933-111-01	CHASSIS (MD)		259	4-933-112-01	TABLE, DISK	
* 252	1-645-721-11	LOADING BOARD		260	4-933-110-01	HOLDER (MG)	
* 253	4-917-583-21	BRACKET, YOKE		* 261	1-452-538-11	MAGNET	
254	4-927-649-01	BELT		262	4-933-134-01	SCREW (+PTPWH M2, 6X6)	
255	4-933-109-01	CAM		263	4-959-996-01	SPRING (932), COMPRESSION	
256	4-927-651-01	PULLEY (S)		264	4-933-129-01	HOLDER (BU)	
257	4-927-628-01	GEAR (C)		M151	A-4604-363-A	MOTOR (L) ASSY (LOADING)	
258	4-933-107-01	GEAR (PL)					

6-7. OPTICAL PICK-UP BLOCK SECTION (BU-5BD13)



The components identified by mark \triangle or dotted line with mark \triangle are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description
301	4-917-565-01	SHAFT, SLED
302	4-951-940-01	INSULATOR (BU)
303	4-917-567-01	GEAR (M)
304	4-917-564-01	GEAR (P), FLATNESS
* 305	A-4673-064-A	BD BOARD, COMPLETE
\triangle 306	8-848-144-11	OPTICAL PICK-UP BLOCK (KSS-240A)

Remark	Ref. No.	Part No.	Description	Remark
	307	1-575-001-11	WIRE, FLAT TYPE (12 CORE)	
	308	4-951-620-01	SCREW (2.6X8), +BVTP	
	M301	X-4917-523-4	MOTOR ASSY (SPINDLE)	
	M302	X-4917-504-1	MOTOR ASSY (SLED)	
	S101	1-572-085-11	SWITCH, LEAF (LIMIT)	

SECTION 7

ELECTRICAL PARTS LIST

BD

NOTE:

The components identified by mark \triangle or dotted line with mark \triangle are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board name.

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts Example:
KNOB, BALANCE (WHITE) . . . (RED)
 ↑ ↑
 Parts color Cabinet's color
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.

• RESISTORS

All resistors are in ohms

METAL: Metal-film resistor

METAL OXIDE: Metal Oxide-film resistor

F: nonflammable

• SEMICONDUCTORS

In each case, u: μ , for example:

uA...: μ A..., uPA...: μ PA..., uPB...: μ PB...,

uPC...: μ PC..., uPD...: μ PD...

• CAPACITORS

uF: μ F

• COILS

uH: μ H

• G : German model

• IT : Italian model

• EE : East European model

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	A-4673-064=A	BD BOARD, COMPLETE	*****				< CONNECTOR >
< CAPACITOR >							
C101	1-163-005-11	CERAMIC CHIP	470PF	10%	50V		
C102	1-163-038-00	CERAMIC CHIP	0.1uF		25V		
C103	1-163-005-11	CERAMIC CHIP	470PF	10%	50V		
C105	1-135-155-21	TANTALUM CHIP	4.7uF	10%	16V		
C106	1-164-346-11	CERAMIC CHIP	1uF		16V		
C107	1-164-505-11	CERAMIC CHIP	2.2uF		16V		
C108	1-163-035-00	CERAMIC CHIP	0.047uF		50V		
C109	1-163-011-11	CERAMIC CHIP	0.0015uF	10%	50V		
C110	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V		
C111	1-163-251-11	CERAMIC CHIP	100PF	5%	50V		
C112	1-163-038-00	CERAMIC CHIP	0.1uF		25V		
C113	1-163-038-00	CERAMIC CHIP	0.1uF		25V		
C123	1-164-232-11	CERAMIC CHIP	0.01uF		50V		
C124	1-164-005-11	CERAMIC CHIP	0.47uF		25V		
C131	1-163-038-00	CERAMIC CHIP	0.1uF		25V		
C132	1-163-038-00	CERAMIC CHIP	0.1uF		25V		
C133	1-163-038-00	CERAMIC CHIP	0.1uF		25V		
C153	1-163-038-00	CERAMIC CHIP	0.1uF		25V		
C159	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V		
C161	1-163-038-00	CERAMIC CHIP	0.1uF		25V		
C177	1-163-038-00	CERAMIC CHIP	0.1uF		25V		
C178	1-163-038-00	CERAMIC CHIP	0.1uF		25V		
C179	1-163-038-00	CERAMIC CHIP	0.1uF		25V		
C181	1-163-038-00	CERAMIC CHIP	0.1uF		25V		
C182	1-163-038-00	CERAMIC CHIP	0.1uF		25V		
C183	1-135-156-21	TANTALUM CHIP	6.8uF	10%	10V		
C184	1-135-156-21	TANTALUM CHIP	6.8uF	10%	10V		
C185	1-135-156-21	TANTALUM CHIP	6.8uF	10%	10V		
C186	1-163-038-00	CERAMIC CHIP	0.1uF		25V		
C187	1-163-038-00	CERAMIC CHIP	0.1uF		25V		
C188	1-163-038-00	CERAMIC CHIP	0.1uF		25V		
C191	1-163-091-00	CERAMIC CHIP	8PF		50V		
C192	1-163-091-00	CERAMIC CHIP	8PF		50V		
C193	1-163-125-00	CERAMIC CHIP	220PF	5%	50V		
C194	1-163-125-00	CERAMIC CHIP	220PF	5%	50V		
C195	1-163-038-00	CERAMIC CHIP	0.1uF		25V		
C196	1-163-005-11	CERAMIC CHIP	470PF	10%	50V		
C197	1-163-038-00	CERAMIC CHIP	0.1uF		25V		
< IC >							
IC101	8-752-361-90	IC	CXD2515Q				
IC102	8-759-176-09	IC	BA6392FP				
IC103	8-752-367-61	IC	CXD2565AM				
< COIL >							
L101	1-414-234-11	INDUCTOR, FERRITE BEAD					
L102	1-414-234-11	INDUCTOR, FERRITE BEAD					
L103	1-414-234-11	INDUCTOR, FERRITE BEAD					
L104	1-216-001-00	METAL CHIP	10	5%		1/10W	
L105	1-216-295-00	METAL CHIP	0	5%		1/10W	
L106	1-414-234-11	INDUCTOR, FERRITE BEAD					
L107	1-216-295-00	METAL CHIP	0	5%		1/10W	
L108	1-216-295-00	METAL CHIP	0	5%		1/10W	
< MOTOR >							
M301	X-4917-523-3	MOTOR ASSY (SPINDLE)					
M302	X-4917-504-1	MOTOR ASSY (SLED)					
< RESISTOR >							
R101	1-216-077-00	METAL CHIP	15K	5%		1/10W	
R102	1-216-097-00	METAL CHIP	100K	5%		1/10W	
R103	1-216-077-00	METAL CHIP	15K	5%		1/10W	
R104	1-216-085-00	METAL CHIP	33K	5%		1/10W	
R105	1-216-065-00	METAL CHIP	4.7K	5%		1/10W	
R106	1-216-061-00	METAL CHIP	3.3K	5%		1/10W	
R107	1-216-061-00	METAL CHIP	3.3K	5%		1/10W	
R108	1-216-073-00	METAL CHIP	10K	5%		1/10W	
R109	1-216-121-00	METAL CHIP	1M	5%		1/10W	
R110	1-216-025-00	METAL CHIP	100	5%		1/10W	
R112	1-216-049-00	METAL CHIP	1K	5%		1/10W	
R122	1-216-295-00	METAL CHIP	0	5%		1/10W	
R123	1-216-073-00	METAL CHIP	10K	5%		1/10W	
R124	1-216-097-00	METAL CHIP	100K	5%		1/10W	
R125	1-216-049-00	METAL CHIP	1K	5%		1/10W	
R126	1-216-049-00	METAL CHIP	1K	5%		1/10W	
R127	1-216-049-00	METAL CHIP	1K	5%		1/10W	

BD **CD PANEL**

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>			<u>Remark</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>			<u>Remark</u>
R131	1-216-037-00	METAL CHIP	330	5%	1/10W			< RESISTOR >			
R158	1-216-111-00	METAL CHIP	390K	5%	1/10W		R201	1-249-428-11	CARBON	8.2K	5% 1/4W F
R159	1-216-101-00	METAL CHIP	150K	5%	1/10W		R202	1-249-428-11	CARBON	8.2K	5% 1/4W F
R181	1-216-053-00	METAL CHIP	1.5K	5%	1/10W		R203	1-249-417-11	CARBON	1K	5% 1/4W F
R182	1-216-080-00	METAL CHIP	20K	5%	1/10W		R204	1-249-417-11	CARBON	1K	5% 1/4W F
R183	1-216-080-00	METAL CHIP	20K	5%	1/10W		R205	1-249-417-11	CARBON	1K	5% 1/4W F
R184	1-216-080-00	METAL CHIP	20K	5%	1/10W		R206	1-249-441-11	CARBON	100K	5% 1/4W
R185	1-216-080-00	METAL CHIP	20K	5%	1/10W		R207	1-249-428-11	CARBON	8.2K	5% 1/4W F
R187	1-216-035-00	METAL CHIP	270	5%	1/10W		R208	1-249-418-11	CARBON	1.2K	5% 1/4W F
R188	1-216-121-00	METAL CHIP	1M	5%	1/10W		R209	1-247-836-11	CARBON	1.6K	5% 1/4W
R189	1-414-234-11	INDUCTOR, FERRITE BEAD					R210	1-249-421-11	CARBON	2.2K	5% 1/4W F
		< SWITCH >					R211	1-249-423-11	CARBON	3.3K	5% 1/4W F
S101	1-572-085-11	SWITCH, LEAF (LIMIT)					R212	1-249-426-11	CARBON	5.6K	5% 1/4W
		< VIBRATOR >					R213	1-247-856-00	CARBON	11K	5% 1/4W
X101	1-579-904-11	VIBRATOR, CRYSTAL (33.8MHz)					R214	1-249-435-11	CARBON	33K	5% 1/4W

*	A-4369-154-A	CD PANEL BOARD, COMPLETE (UK)					R215	1-249-428-11	CARBON	8.2K	5% 1/4W F
		*****					R216	1-249-418-11	CARBON	1.2K	5% 1/4W F
*	A-4369-167-A	CD PANEL BOARD, COMPLETE					R217	1-247-836-11	CARBON	1.6K	5% 1/4W
		*****					R218	1-249-421-11	CARBON	2.2K	5% 1/4W F
		(AEP, IT, G, EE, CIS)					R219	1-249-423-11	CARBON	3.3K	5% 1/4W F
*	4-949-935-21	CUSHION (FL)					R220	1-249-426-11	CARBON	5.6K	5% 1/4W
*	4-955-816-01	HOLDER (1F), FL TUBE					R221	1-247-856-00	CARBON	11K	5% 1/4W
		< CAPACITOR >					R222	1-249-435-11	CARBON	33K	5% 1/4W
C201	1-161-494-00	CERAMIC	0.022uF		25V		R223	1-249-417-11	CARBON	1K	5% 1/4W F
C202	1-164-159-11	CERAMIC	0.1uF		50V		R224	1-249-417-11	CARBON	1K	5% 1/4W F
C203	1-164-159-11	CERAMIC	0.1uF		50V		R225	1-249-425-11	CARBON	4.7K	5% 1/4W F
C204	1-124-903-11	ELECT	1uF	20%	50V		R226	1-249-417-11	CARBON	1K	5% 1/4W F
C205	1-124-903-11	ELECT	1uF	20%	50V		R227	1-249-417-11	CARBON	1K	5% 1/4W F
C206	1-162-294-31	CERAMIC	0.001uF	10%	50V		R228	1-249-417-11	CARBON	1K	5% 1/4W F
C207	1-162-294-31	CERAMIC	0.001uF	10%	50V		R229	1-249-417-11	CARBON	1K	5% 1/4W F
		< CONNECTOR >					< SWITCH >				
* CN201	1-568-839-11	SOCKET, CONNECTOR 23P					S201	1-554-303-21	SWITCH, TACTILE (PROGRAM)		
		< FLUORESCENT INDICATOR >					S202	1-554-303-21	SWITCH, TACTILE (SHUFFLE)		
							S203	1-554-303-21	SWITCH, TACTILE (CONTINUE)		
							S204	1-554-303-21	SWITCH, TACTILE (TIME)		
							S205	1-554-303-21	SWITCH, TACTILE (REPEAT)		
							S206	1-554-303-21	SWITCH, TACTILE (FADE)		
							S207	1-554-303-21	SWITCH, TACTILE (MUSIC SCAN)		
							S208	1-554-303-21	SWITCH, TACTILE (EDIT)		
							S209	1-554-303-21	SWITCH, TACTILE (CHECK)		
							S210	1-554-303-21	SWITCH, TACTILE (CLEAR)		
							S211	1-554-303-21	SWITCH, TACTILE (D>)		
							S212	1-554-303-21	SWITCH, TACTILE (H)		
							S213	1-554-303-21	SWITCH, TACTILE (B)		
							S214	1-554-303-21	SWITCH, TACTILE (D>>D)		
							S215	1-554-303-21	SWITCH, TACTILE (B<<B)		
							S216	1-554-303-21	SWITCH, TACTILE (△ OPEN/CLOSE)		
Q201	8-729-900-80	TRANSISTOR DTC114ES									

CD PANEL **FUSE** **H.P** **LEAF SW-A** **LEAF SW-B** **LOADING**

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>
		< VIBRATOR >		*	1-638-020-11	LEAF SW-B BOARD (RB53A) *****	
X201	1-577-358-21	VIBRATOR, CERAMIC (4MHz)					

*	1-652-388-11	FUSE BOARD (AEP, IT, G) *****		*	CNP81	1-568-850-11 SOCKET, CONNECTOR 7P	
*	1-652-389-11	FUSE BOARD (UK, EE, CIS) *****					
		< FUSE >					
△F101	1-532-286-00	FUSE, TIME-LAG (T2.5A)		R81	1-249-414-11	CARBON	560 5% 1/4W F
△F102	1-532-286-00	FUSE, TIME-LAG (T2.5A)		R82	1-247-818-91	CARBON	300 5% 1/4W
△F103	1-532-299-00	FUSE, TIME-LAG (T5.0A)		R83	1-247-834-11	CARBON	1.3K 5% 1/4W
△F104	1-532-299-00	FUSE, TIME-LAG (T5.0A)		R84	1-249-417-11	CARBON	1K 5% 1/4W F
		*****		R85	1-249-408-11	CARBON	180 5% 1/4W F

*	1-651-166-11	H.P BOARD *****					
		< CAPACITOR >		S81B	1-571-958-11	SWITCH, PUSH (1 KEY) (STOP DET)	
C1237	1-162-282-31	CERAMIC	100PF	10%	50V (IT, G)	S82B	1-571-281-21 SWITCH, LEAF (CrO2 DET)
C1238	1-162-282-31	CERAMIC	100PF	10%	50V (IT, G)	S84	1-571-281-21 SWITCH, LEAF (ERASE PROOF, SIDE A)
		< JACK >		S85	1-571-281-21	SWITCH, LEAF (ERASE PROOF, SIDE B)	
J1203	1-569-113-11	JACK, LARGE TYPE (HEADPHONES)		S86B	1-571-281-21	SWITCH, LEAF (HALF DET)	

*	1-638-020-11	LEAF SW-A BOARD (RA12AL) *****					
		< CONNECTOR >					
* CNP81	1-568-852-11	SOCKET, CONNECTOR 9P					
		< IC >					
IC81A	8-749-924-10	PHOTO REFLECTOR NJL5165K-B(H1)					
		< RESISTOR >					
R84	1-249-417-11	CARBON	1K	5%	1/4W F		
R85	1-249-408-11	CARBON	180	5%	1/4W F		
		< SWITCH >					
S81A	1-571-958-11	SWITCH, PUSH (1 KEY) (STOP DET)					
S82A	1-571-281-21	SWITCH, LEAF (CrO2 DET)					
S86A	1-571-281-21	SWITCH, LEAF (HALF DET)					

MAIN

Ref. No.	Part No.	Description		Remark	Ref. No.	Part No.	Description		Remark
*	A-4369-161-A	MAIN BOARD, COMPLETE (UK)	*****		C25	1-161-327-00	CERAMIC	0.0033uF	30% 16V
		*****			C26	1-124-477-11	ELECT	47uF	20% 25V
*	A-4369-306-A	MAIN BOARD, COMPLETE (IT)	*****		C27	1-126-962-11	ELECT	3.3uF	20% 50V
		*****			C28	1-161-494-00	CERAMIC	0.022uF	25V
*	A-4369-300-A	MAIN BOARD, COMPLETE (AEP)	*****		C29	1-124-907-11	ELECT	10uF	20% 50V
		*****			C30	1-161-494-00	CERAMIC	0.022uF	25V
*	A-4369-311-A	MAIN BOARD, COMPLETE (EE)	*****		C31	1-101-005-00	CERAMIC	22000PF	50V
		*****			C32	1-162-196-31	CERAMIC	5.6PF	10% 50V (AEP, UK, EE, CIS)
*	A-4369-901-A	MAIN BOARD, COMPLETE (G)	*****		C32	1-162-198-31	CERAMIC	8.2PF	10% 50V (IT, G)
		*****			C33	1-161-379-00	CERAMIC	0.01uF	20% 25V
*	A-4369-905-A	MAIN BOARD, COMPLETE (CIS)	*****		C34	1-164-159-11	CERAMIC	0.1uF	50V (AEP, UK, EE, CIS)
		*****			C37	1-161-374-11	CERAMIC	0.0015uF	20% 50V (AEP, UK, EE, CIS)
	7-685-646-79	SCREW +BVTP	3X8	TYPE2 N-S	C38	1-102-120-00	CERAMIC	0.0018uF	10% 50V
	7-682-547-09	SCREW +BVTT	3X6	(S)	C39	1-101-005-00	CERAMIC	22000PF	50V (AEP, UK, EE, CIS)
	< CAPACITOR >				C45	1-161-379-00	CERAMIC	0.01uF	20% 25V
C1	1-161-379-00	CERAMIC	0.01uF	20%	C46	1-162-294-31	CERAMIC	0.001uF	10% 50V (AEP)
C2	1-124-477-11	ELECT	47uF	20%	C51	1-102-961-00	CERAMIC	27PF	5% 50V
C3	1-161-379-00	CERAMIC	0.01uF	20%	C52	1-102-961-00	CERAMIC	27PF	5% 50V
C4	1-164-159-11	CERAMIC	0.1uF	50V	C53	1-124-477-11	ELECT	47uF	20% 25V
C5	1-161-379-00	CERAMIC	0.01uF	20%	C54	1-161-379-00	CERAMIC	0.01uF	20% 25V
C5	1-164-159-11	CERAMIC	0.1uF	50V	C55	1-161-379-00	CERAMIC	0.01uF	20% 25V
				(EXCEPT CIS)	C56	1-161-379-00	CERAMIC	0.01uF	20% 25V
C6	1-161-379-00	CERAMIC	0.01uF	20%	C57	1-161-379-00	CERAMIC	0.01uF	20% 25V
C7	1-126-934-11	ELECT	220uF	20%	C58	1-161-379-00	CERAMIC	0.01uF	20% 25V
C8	1-161-379-00	CERAMIC	0.01uF	20%	C61	1-124-925-11	ELECT	2.2uF	20% 100V
C9	1-161-379-00	CERAMIC	0.01uF	20%	C62	1-124-463-00	ELECT	0.1uF	20% 50V
C10	1-161-379-00	CERAMIC	0.01uF	20%	C63	1-161-379-00	CERAMIC	0.01uF	20% 25V
C11	1-124-907-11	ELECT	10uF	20%	C64	1-161-379-00	CERAMIC	0.01uF	20% 25V
C12	1-124-902-00	ELECT	0.47uF	20%	C65	1-124-120-11	ELECT	220uF	20% 25V (UK)
C13	1-124-903-11	ELECT	1uF	20%	C65	1-126-934-11	ELECT	220uF	20% 16V (AEP, IT, G, EE, CIS)
C14	1-124-903-11	ELECT	1uF	20%	C67	1-161-379-00	CERAMIC	0.01uF	20% 25V
C15	1-124-907-11	ELECT	10uF	20%	C71	1-136-173-00	FILM	0.47uF	5% 50V (AEP, UK, EE, CIS)
C16	1-124-907-11	ELECT	10uF	20%	C72	1-161-494-00	CERAMIC	0.022uF	25V (AEP, UK, EE, CIS)
C17	1-124-907-11	ELECT	10uF	20%	C73	1-124-463-00	ELECT	0.1uF	20% 50V (AEP, UK, EE, CIS)
C18	1-124-907-11	ELECT	10uF	20%	C81	1-162-291-31	CERAMIC	560PF	10% 50V (AEP, IT, G)
C19	1-136-159-00	FILM	0.033uF	5%	C82	1-124-907-11	ELECT	10uF	20% 50V (AEP, IT, G)
C20	1-136-158-00	FILM	0.027uF	5%	C83	1-161-379-00	CERAMIC	0.01uF	20% 25V (AEP, IT, G)
C20	1-136-159-00	FILM	0.033uF	5%	C84	1-124-925-11	ELECT	2.2uF	20% 100V (AEP, IT, G)
C21	1-161-046-00	CERAMIC	0.0039uF	10%	C85	1-162-288-31	CERAMIC	330PF	10% 50V (AEP, IT, G)
C22	1-161-046-00	CERAMIC	0.0039uF	10%	C86	1-161-379-00	CERAMIC	0.01uF	20% 25V (AEP, IT, G)
C23	1-124-903-11	ELECT	1uF	20%	C87	1-162-291-31	CERAMIC	560PF	10% 50V (AEP, IT, G)
C24	1-161-374-11	CERAMIC	0.0015uF	20%	C88	1-161-379-00	CERAMIC	0.01uF	20% 25V (AEP, IT, G)
C24	1-162-294-31	CERAMIC	0.001uF	10%					
				(AEP, UK, EE, CIS)					

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
C89	1-101-880-00	CERAMIC	47PF	5%	50V (AEP, IT, G)	C1027	1-137-375-11	FILM	0.068uF	5%	50V
C90	1-102-527-11	CERAMIC	82PF	5%	50V (AEP, IT, G)	C1028	1-124-903-11	ELECT	1uF	20%	50V
C91	1-161-379-00	CERAMIC	0.01uF	20%	25V (AEP, IT, G)	C1029	1-137-441-11	FILM	0.027uF	5%	50V
C92	1-124-907-11	ELECT	10uF	20%	50V (AEP, IT, G)	C1030	1-124-902-00	ELECT	0.47uF	20%	50V
C93	1-124-907-11	ELECT	10uF	20%	50V (AEP, IT, G)	C1031	1-137-370-11	FILM	0.01uF	5%	50V
C95	1-124-903-11	ELECT	1uF	20%	50V (CIS)	C1032	1-136-168-00	FILM	0.18uF	5%	50V
C96	1-124-903-11	ELECT	1uF	20%	50V (CIS)	C1033	1-137-436-11	FILM	0.0039uF	5%	50V
C301	1-124-477-11	ELECT	47uF	20%	25V	C1034	1-137-375-11	FILM	0.068uF	5%	50V
C302	1-124-477-11	ELECT	47uF	20%	25V	C1035	1-137-434-11	FILM	0.0018uF	5%	50V
C303	1-124-927-11	ELECT	4.7uF	20%	100V	C1036	1-130-489-00	MYLAR	0.033uF	5%	50V
C304	1-126-176-11	ELECT	220uF	20%	10V	C1037	1-137-363-91	FILM	680PF	5%	50V
C305	1-124-472-11	ELECT	470uF	20%	10V	C1038	1-137-439-91	FILM	0.012uF	5%	50V
C306	1-124-902-00	ELECT	0.47uF	20%	50V	C1039	1-137-429-11	FILM	270PF	5%	50V
C308	1-124-907-11	ELECT	10uF	20%	50V	C1040	1-137-368-11	FILM	0.0047uF	5%	50V
C309	1-124-443-00	ELECT	100uF	20%	10V	C1041	1-124-907-11	ELECT	10uF	20%	50V
C310	1-164-159-11	CERAMIC	0.1uF		50V	C1042	1-164-159-11	CERAMIC	0.1uF		50V
C311	1-164-159-11	CERAMIC	0.1uF		50V	C1045	1-164-159-11	CERAMIC	0.1uF		50V
C312	1-164-159-11	CERAMIC	0.1uF		50V	C1046	1-164-159-11	CERAMIC	0.1uF		50V
C313	1-161-379-00	CERAMIC	0.01uF	20%	25V	C1047	1-164-159-11	CERAMIC	0.1uF		50V
C314	1-161-494-00	CERAMIC	0.022uF		25V	C1048	1-164-159-11	CERAMIC	0.1uF		50V
C317	1-162-284-31	CERAMIC	150PF	10%	50V	C1049	1-164-159-11	CERAMIC	0.1uF		50V
C318	1-162-284-31	CERAMIC	150PF	10%	50V	C1050	1-164-159-11	CERAMIC	0.1uF		50V
C319	1-162-284-31	CERAMIC	150PF	10%	50V	C1051	1-162-286-31	CERAMIC	220PF	10%	50V (IT, G)
C320	1-162-284-31	CERAMIC	150PF	10%	50V	C1052	1-124-925-11	ELECT	2.2uF	20%	100V
C321	1-137-437-11	FILM	0.0056uF	5%	50V	C1053	1-162-282-31	CERAMIC	100PF	10%	50V
C322	1-137-437-11	FILM	0.0056uF	5%	50V	C1058	1-124-477-11	ELECT	47uF	20%	25V (IT, G)
C323	1-137-364-11	FILM	0.001uF	5%	50V	C1061	1-162-286-31	CERAMIC	220PF	10%	50V (IT, G)
C324	1-137-364-11	FILM	0.001uF	5%	50V	C1063	1-162-282-31	CERAMIC	100PF	10%	50V
C325	1-124-477-11	ELECT	47uF	20%	25V	C1064	1-124-482-11	ELECT	33uF	20%	35V (EE, CIS)
C326	1-124-477-11	ELECT	47uF	20%	25V	C1064	1-124-927-11	ELECT	4.7uF	20%	100V (AEP, UK, IT, G)
C329	1-164-159-11	CERAMIC	0.1uF		50V	C1065	1-161-377-00	CERAMIC	0.0047uF	30%	16V
C330	1-124-927-11	ELECT	4.7uF	20%	100V	C1066	1-161-374-11	CERAMIC	0.0015uF	20%	50V
C331	1-124-126-00	ELECT	47uF	20%	10V	C1067	1-124-464-11	ELECT	0.22uF	20%	50V
C1001	1-162-286-31	CERAMIC	220PF	10%	50V (IT, G)	C1069	1-164-159-11	CERAMIC	0.1uF		50V
C1002	1-124-925-11	ELECT	2.2uF	20%	100V	C1071	1-164-159-11	CERAMIC	0.1uF		50V
C1003	1-162-282-31	CERAMIC	100PF	10%	50V	C1072	1-126-176-11	ELECT	220uF	20%	10V
C1008	1-124-477-11	ELECT	47uF	20%	25V (IT, G)	C1073	1-124-443-00	ELECT	100uF	20%	10V
C1011	1-162-288-31	CERAMIC	330PF	10%	50V (IT, G)	C1074	1-124-443-00	ELECT	100uF	20%	10V
C1013	1-162-282-31	CERAMIC	100PF	10%	50V	C1076	1-137-364-11	FILM	0.001uF	5%	50V
C1014	1-124-482-11	ELECT	33uF	20%	35V (EE, CIS)	C1077	1-137-375-11	FILM	0.068uF	5%	50V
C1014	1-124-927-11	ELECT	4.7uF	20%	100V (AEP, UK, IT, G)	C1078	1-124-903-11	ELECT	1uF	20%	50V
C1015	1-161-377-00	CERAMIC	0.0047uF	30%	16V	C1079	1-137-441-11	FILM	0.027uF	5%	50V
C1016	1-161-374-11	CERAMIC	0.0015uF	20%	50V	C1080	1-124-902-00	ELECT	0.47uF	20%	50V
C1017	1-124-464-11	ELECT	0.22uF	20%	50V	C1081	1-137-370-11	FILM	0.01uF	5%	50V
C1019	1-164-159-11	CERAMIC	0.1uF		50V	C1082	1-136-168-00	FILM	0.18uF	5%	50V
C1021	1-164-159-11	CERAMIC	0.1uF		50V	C1083	1-137-436-11	FILM	0.0039uF	5%	50V
C1022	1-126-176-11	ELECT	220uF	20%	10V	C1084	1-137-375-11	FILM	0.068uF	5%	50V
C1023	1-124-443-00	ELECT	100uF	20%	10V	C1085	1-137-434-11	FILM	0.0018uF	5%	50V
C1024	1-124-443-00	ELECT	100uF	20%	10V	C1086	1-130-489-00	MYLAR	0.033uF	5%	50V
C1026	1-137-364-11	FILM	0.001uF	5%	50V	C1087	1-137-363-91	FILM	680PF	5%	50V

MAIN

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>			<u>Remark</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>			<u>Remark</u>
C1088	1-137-439-91	FILM	0.012uF	5%	50V		* CN1	1-568-830-11	SOCKET, CONNECTOR 11P	(UK, EE, CIS)	
C1089	1-137-429-11	FILM	270PF	5%	50V		CN2	1-750-418-11	CONNECTOR, FFC/FPC	13P (CIS)	
C1090	1-137-368-11	FILM	0.0047uF	5%	50V		* CN303	1-568-954-11	PIN, CONNECTOR	5P	
C1091	1-124-907-11	ELECT	10uF	20%	50V		* CN304	1-568-839-11	SOCKET, CONNECTOR	23P	
C1301	1-126-974-11	ELECT	3300uF	20%	50V		CN1301	1-764-329-11	PIN, CONNECTOR (PCB)	(V TYPE) 6P	
C1302	1-126-925-11	ELECT	470uF	20%	10V		CN1302	1-568-934-21	PIN, CONNECTOR	7P (UK, EE, CIS)	
C1303	1-164-159-11	CERAMIC	0.1uF		50V		* CN1302	1-568-935-11	PIN, CONNECTOR	8P (AEP, IT, G)	
C1305	1-124-564-11	ELECT	4700uF	20%	25V		CN1303	1-764-328-11	PIN, CONNECTOR (PCB)	(V TYPE) 5P	
C1306	1-124-564-11	ELECT	4700uF	20%	25V		CN1304	1-750-430-11	CONNECTOR, FFC/FPC	25P	
C1307	1-164-159-11	CERAMIC	0.1uF		50V		CN1305	1-764-328-21	PIN, CONNECTOR (PCB)	(V TYPE) 5P	
C1313	1-126-176-11	ELECT	220uF	20%	10V		* CN1308	1-566-210-11	PIN, CONNECTOR	3P (POWER SOURCE)	
C1314	1-126-176-11	ELECT	220uF	20%	10V						(AEP, UK, IT, G)
C1315	1-124-907-11	ELECT	10uF	20%	50V						< COMPOSITION CIRCUIT BLOCK >
C1316	1-124-907-11	ELECT	10uF	20%	50V						
C1317	1-124-907-11	ELECT	10uF	20%	50V						
C1318	1-124-907-11	ELECT	10uF	20%	50V		CPI001	1-239-053-11	COMPOSITION CIRCUIT BLOCK	1M	
C1331	1-126-927-11	ELECT	2200uF	20%	6.3V		CP1051	1-239-053-11	COMPOSITION CIRCUIT BLOCK	1M	
C1333	1-124-907-11	ELECT	10uF	20%	50V						< DIODE >
C1335	1-164-159-11	CERAMIC	0.1uF		50V (IT, G)		D1	8-719-987-63	DIODE	1N4148M	
C1336	1-164-159-11	CERAMIC	0.1uF		50V (IT, G)		D2	8-719-987-63	DIODE	1N4148M (CIS)	
C1337	1-161-379-00	CERAMIC	0.01uF	20%	25V (IT, G)		D3	8-719-987-63	DIODE	1N4148M (CIS)	
C1341	1-126-176-11	ELECT	220uF	20%	10V		D301	8-719-987-63	DIODE	1N4148M	
C1342	1-126-176-11	ELECT	220uF	20%	10V		D302	8-719-010-33	DIODE	UZ-4.7BSB	
C1343	1-124-925-11	ELECT	2.2uF	20%	100V		D303	8-719-210-21	DIODE	11EQS04	
C1344	1-124-443-00	ELECT	100uF	20%	10V		D304	8-719-987-63	DIODE	1N4148M	
C1349	1-124-916-11	ELECT	22uF	20%	63V		D305	8-719-987-63	DIODE	1N4148M	
C1350	1-124-916-11	ELECT	22uF	20%	63V		D1203	8-719-987-63	DIODE	1N4148M	
					(AEP, UK, IT, G)		D1301	8-719-510-68	DIODE	D5SBA20F01	
C1353	1-164-159-11	CERAMIC	0.1uF		50V		D1304	8-719-200-82	DIODE	11ES2	
C1357	1-164-159-11	CERAMIC	0.1uF		50V		D1305	8-719-200-82	DIODE	11ES2	
C1371	1-124-122-11	ELECT	100uF	20%	50V(UK, EE, CIS)		D1306	8-719-200-82	DIODE	11ES2	
C1372	1-124-122-11	ELECT	100uF	20%	50V(UK, EE, CIS)		D1307	8-719-200-82	DIODE	11ES2	
C1373	1-126-105-11	ELECT	1000uF	20%	35V(UK, EE, CIS)		D1313	8-719-200-82	DIODE	11ES2	
C1374	1-124-478-11	ELECT	100uF	20%	25V		D1314	8-719-200-82	DIODE	11ES2	
C1375	1-124-477-11	ELECT	47uF	20%	25V		D1315	8-719-987-63	DIODE	1N4148M	
C1385	1-164-159-11	CERAMIC	0.1uF		50V (IT, G)		D1316	8-719-200-82	DIODE	11ES2	
C1386	1-164-159-11	CERAMIC	0.1uF		50V (IT, G)		D1317	8-719-200-82	DIODE	11ES2	
C1387	1-161-379-00	CERAMIC	0.01uF	20%	25V (IT, G)		D1318	8-719-987-63	DIODE	1N4148M	
							D1319	8-719-200-82	DIODE	11ES2	
							D1320	8-719-200-82	DIODE	11ES2	
							D1321	8-719-200-82	DIODE	11ES2	
							D1322	8-719-200-82	DIODE	11ES2	
							D1323	8-719-200-82	DIODE	11ES2	
							D1324	8-719-200-82	DIODE	11ES2	
							D1325	8-719-200-82	DIODE	11ES2	
							D1326	8-719-200-82	DIODE	11ES2	
							D1331	8-719-200-82	DIODE	11ES2	
							D1333	8-719-200-82	DIODE	11ES2	
							D1335	8-719-200-82	DIODE	11ES2	
							D1336	8-719-200-82	DIODE	11ES2	
< FILTER >											
CF1	1-567-389-11	FILTER, CERAMIC									
CF2	1-567-389-11	FILTER, CERAMIC									
CF3	1-567-389-11	FILTER, CERAMIC (IT, G)									
CF4	1-527-981-00	FILTER, CERAMIC									
CF5	1-577-075-11	OSCILLATOR, CERAMIC									
CF6	1-760-220-11	FILTER, CERAMIC									
											< CONNECTOR >
* CN1	1-568-834-11	SOCKET, CONNECTOR 15P	(AEP, IT, G)								

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
D1337	8-719-987-63	DIODE	1N4148M				< COIL >
D1341	8-719-987-63	DIODE	1N4148M	L1	1-407-500-00	INDUCTOR	4.7mH
D1342	8-719-987-63	DIODE	1N4148M	L2	1-410-524-41	INDUCTOR	220uH (AEP, UK, EE, CIS)
D1343	8-719-987-63	DIODE	1N4148M	L81	1-410-521-11	INDUCTOR	100uH (AEP, IT, G)
D1371	8-719-200-82	DIODE	11ES2 (UK, EE, CIS)	L301	1-410-322-11	INDUCTOR	3.3uH
D1372	8-719-200-82	DIODE	11ES2 (UK, EE, CIS)	L302	1-410-322-11	INDUCTOR	3.3uH
D1373	8-719-200-82	DIODE	11ES2 (UK, EE, CIS)	L1301	1-420-872-00	COIL, AIR-CORE	
D1374	8-719-200-82	DIODE	11ES2 (UK, EE, CIS)	L1351	1-420-872-00	COIL, AIR-CORE	
D1375	8-719-001-43	DIODE	UZL-11M1				< FILTER >
				LPF1	1-239-597-11	FILTER, LOW PASS	
FE1	1-465-007-11	FRONT END (4 GANG)	(IT, G)	LPF2	1-239-597-11	FILTER, LOW PASS	
FE1	1-693-090-31	FRONT END (FM)	(2 GANG) (AEP, UK)				< TRANSISTOR >
FE1	1-693-244-11	FRONT END (3 GANG)	(EE, CIS)	Q1	8-729-230-XX	TRANSISTOR	2SC26690Y-TPE4
FE2	1-239-260-11	ENCAPSULATED COMPONENT	(IT, G)	Q2	8-729-230-XX	TRANSISTOR	2SC26690Y-TPE4 (IT, G)
FE2	1-239-261-12	ENCAPSULATED COMPONENT	(AEP, UK, EE, CIS)	Q3	8-729-119-76	TRANSISTOR	2SA1175-HFE (AEP, UK, EE, CIS)
FE3	1-236-463-11	ENCAPSULATED COMPONENT	(AEP, UK, EE, CIS)	Q4	8-729-119-76	TRANSISTOR	2SA1175-HFE (AEP, UK, EE, CIS)
				Q5	8-729-900-80	TRANSISTOR	DTC114ES (AEP, UK, EE, CIS)
				Q6	8-729-900-80	TRANSISTOR	DTC114ES (AEP, UK, EE, CIS)
IC1	8-759-176-03	IC	LA1835	Q7	8-729-900-80	TRANSISTOR	DTC114ES (AEP, UK, EE, CIS)
IC51	8-759-175-87	IC	LCT218-ST	Q8	8-729-900-80	TRANSISTOR	DTC114ES (AEP, UK, EE, CIS)
IC81	8-759-145-58	IC	UPC4558C (AEP, IT, G)	Q55	8-729-900-61	TRANSISTOR	DTA114ES
IC82	8-759-169-99	IC	SAA6579 (AEP, IT, G)	Q61	8-729-202-67	TRANSISTOR	2SK246-GR3
IC83	8-759-062-26	IC	LCT073 (AEP, IT, G)	Q62	8-729-201-84	TRANSISTOR	2SC3112-B
IC301	8-759-061-65	IC	LA5602	Q71	8-729-202-67	TRANSISTOR	2SK246-GR3 (AEP, UK, EE, CIS)
IC302	8-759-805-37	IC	L78LR05D	Q72	8-729-201-84	TRANSISTOR	2SC3112-B (AEP, UK, EE, CIS)
IC304	8-759-822-09	IC	LB1641	Q301	8-729-119-78	TRANSISTOR	2SC403SP-51
IC305	8-759-145-58	IC	UPC4558C	Q302	8-729-900-65	TRANSISTOR	DTA144ES
IC306	8-759-145-58	IC	UPC4558C	Q303	8-729-900-65	TRANSISTOR	DTA144ES
IC307	8-759-605-00	IC	M5F78M07L	Q1031	8-729-119-78	TRANSISTOR	2SC403SP-51
IC1001	8-759-634-51	IC	M5218AP	Q1081	8-729-119-78	TRANSISTOR	2SC403SP-51
IC1002	8-759-000-48	IC	MC14052BCP	Q1341	8-729-900-63	TRANSISTOR	DTA124ES
IC1003	8-759-140-53	IC	UPD4053BC	Q1370	8-729-900-36	TRANSISTOR	DTC124ES (AEP, IT, G)
IC1004	8-759-634-51	IC	M5218AP	Q1371	8-729-209-15	TRANSISTOR	2SD2012
IC1005	8-759-081-01	IC	NJU7305L				< RESISTOR >
IC1006	8-759-633-78	IC	M5289P	R1	1-249-411-11	CARBON	330 5% 1/4W
IC1056	8-759-633-78	IC	M5289P	R2	1-249-411-11	CARBON	330 5% 1/4W
IC1301	8-759-605-00	IC	M5F78M07L	R3	1-249-409-11	CARBON	220 5% 1/4W F
IC1302	8-759-604-95	IC	M5F79M07L	△R4	1-249-402-11	CARBON	56 5% 1/4W F
IC1303	8-759-604-84	IC	M5F7806L	R5	1-247-891-00	CARBON	330K 5% 1/4W
IC1304	8-759-604-39	IC	M5F78M12 (AEP, UK, IT, G)	R6	1-249-411-11	CARBON	330 5% 1/4W
IC1341	8-759-111-68	IC	UPC1237HA	R7	1-247-891-00	CARBON	330K 5% 1/4W (IT, G)
				R8	1-249-411-11	CARBON	330 5% 1/4W (IT, G)
				△R9	1-249-405-11	CARBON	100 5% 1/4W F
				R10	1-249-437-11	CARBON	47K 5% 1/4W
* J1001	1-580-912-11	JACK, PIN 4P	(PHONO/VIDEO)	R12	1-249-429-11	CARBON	10K 5% 1/4W
J1202	1-569-130-11	JACK, PIN 2P	(SURROUND SPEAKER)	R13	1-249-442-11	CARBON	510 5% 1/4W

The components identified by mark ▲ or dotted line with mark △ are critical for safety.
Replace only with part number specified.

MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
△R14	1-249-403-11	CARBON	68 5% 1/4W F	R69	1-249-807-31	CARBON	100 5% 1/4W
R16	1-249-429-11	CARBON	10K 5% 1/4W	R71	1-249-423-11	CARBON	3.3K 5% 1/4W F (AEP, UK, EE, CIS)
R17	1-247-842-11	CARBON	3K 5% 1/4W	R72	1-249-433-11	CARBON	22K 5% 1/4W (AEP, UK, EE, CIS)
R18	1-249-429-11	CARBON	10K 5% 1/4W	R73	1-249-414-11	CARBON	560 5% 1/4W F (AEP, UK, EE, CIS)
R19	1-249-441-11	CARBON	100K 5% 1/4W	R74	1-249-417-11	CARBON	1K 5% 1/4W F (AEP, UK, EE, CIS)
R20	1-249-435-11	CARBON	33K 5% 1/4W	R75	1-249-410-11	CARBON	270 5% 1/4W F (AEP, UK, EE, CIS)
R21	1-249-441-11	CARBON	100K 5% 1/4W	R76	1-249-421-11	CARBON	2.2K 5% 1/4W F (AEP, UK, EE, CIS)
R22	1-249-437-11	CARBON	47K 5% 1/4W	R77	1-249-425-11	CARBON	4.7K 5% 1/4W F (AEP, UK, EE, CIS)
R23	1-249-399-11	CARBON	33 5% 1/4W F	R78	1-247-807-31	CARBON	100 5% 1/4 (AEP, UK, EE, CIS)
R24	1-249-425-11	CARBON	4.7K 5% 1/4W F (AEP, UK, EE, CIS)	R81	1-249-441-11	CARBON	100K 5% 1/4W (AEP, IT, G)
R25	1-249-429-11	CARBON	10K 5% 1/4W (AEP, UK, EE, CIS)	R82	1-249-441-11	CARBON	100K 5% 1/4W (AEP, IT, G)
R26	1-249-429-11	CARBON	10K 5% 1/4W	R83	1-249-433-11	CARBON	22K 5% 1/4W (AEP, IT, G)
R27	1-249-429-11	CARBON	10K 5% 1/4W	R84	1-249-426-11	CARBON	5.6K 5% 1/4W (AEP, IT, G)
R30	1-249-429-11	CARBON	10K 5% 1/4W (AEP, UK, EE, CIS)	R85	1-249-421-11	CARBON	2.2K 5% 1/4W F (AEP, IT, G)
R31	1-249-429-11	CARBON	10K 5% 1/4W (AEP, UK, EE, CIS)	R86	1-249-429-11	CARBON	10K 5% 1/4W (AEP, IT, G)
R32	1-249-433-11	CARBON	22K 5% 1/4W (AEP, UK, EE, CIS)	R301	1-249-429-11	CARBON	10K 5% 1/4W
R33	1-247-903-00	CARBON	1M 5% 1/4W (AEP, UK, EE, CIS)	R302	1-249-429-11	CARBON	10K 5% 1/4W
R34	1-249-437-11	CARBON	47K 5% 1/4W (AEP, UK, EE, CIS)	R318	1-249-417-11	CARBON	1K 5% 1/4W F
R35	1-249-423-11	CARBON	3.3K 5% 1/4W F	R319	1-249-417-11	CARBON	1K 5% 1/4W F
R36	1-249-423-11	CARBON	3.3K 5% 1/4W F	R320	1-247-852-11	CARBON	7.5K 5% 1/4W
R45	1-249-426-11	CARBON	5.6K 5% 1/4W	R321	1-247-852-11	CARBON	7.5K 5% 1/4W
R46	1-249-426-11	CARBON	5.6K 5% 1/4W	R322	1-247-852-11	CARBON	7.5K 5% 1/4W
R47	1-249-408-11	CARBON	180 5% 1/4W F (AEP, IT, G)	R323	1-247-852-11	CARBON	7.5K 5% 1/4W
R48	1-249-423-11	CARBON	3.3K 5% 1/4W F (UK, EE)	R324	1-249-431-11	CARBON	15K 5% 1/4W
R48	1-249-429-11	CARBON	10K 5% 1/4W (AEP, IT, G, CIS)	R325	1-249-431-11	CARBON	15K 5% 1/4W
R49	1-249-423-11	CARBON	3.3K 5% 1/4W F	R326	1-249-431-11	CARBON	15K 5% 1/4W
△R50	1-249-401-11	CARBON	47 5% 1/4W F	R327	1-249-431-11	CARBON	15K 5% 1/4W
R51	1-249-417-11	CARBON	1K 5% 1/4W F	R328	1-249-419-11	CARBON	1.5K 5% 1/4W F
R52	1-249-417-11	CARBON	1K 5% 1/4W F	R329	1-249-419-11	CARBON	1.5K 5% 1/4W F
R53	1-249-417-11	CARBON	1K 5% 1/4W F	R330	1-249-419-11	CARBON	1.5K 5% 1/4W F
R54	1-249-417-11	CARBON	1K 5% 1/4W F	R331	1-249-419-11	CARBON	1.5K 5% 1/4W F
R56	1-249-425-11	CARBON	4.7K 5% 1/4W F	R332	1-249-441-11	CARBON	100K 5% 1/4W
R57	1-249-417-11	CARBON	1K 5% 1/4W F	R333	1-249-441-11	CARBON	100K 5% 1/4W
R58	1-249-417-11	CARBON	1K 5% 1/4W F	R336	1-249-418-11	CARBON	1.2K 5% 1/4W F
△R60	1-249-405-11	CARBON	100 5% 1/4W F	R337	1-249-418-11	CARBON	1.2K 5% 1/4W F
R61	1-249-423-11	CARBON	3.3K 5% 1/4W F	R338	1-249-417-11	CARBON	1K 5% 1/4W F
R62	1-249-425-11	CARBON	4.7K 5% 1/4W F	R339	1-249-429-11	CARBON	10K 5% 1/4W
R63	1-249-414-11	CARBON	560 5% 1/4W F	R1001	1-249-417-11	CARBON	1K 5% 1/4W F
R64	1-249-417-11	CARBON	1K 5% 1/4W F	R1002	1-247-903-00	CARBON	1M 5% 1/4W
R65	1-249-410-11	CARBON	270 5% 1/4W F	R1008	1-249-409-11	CARBON	220 5% 1/4W F (IT, G)
R66	1-249-421-11	CARBON	2.2K 5% 1/4W F	R1011	1-249-417-11	CARBON	1K 5% 1/4W F (IT, G)
R67	1-249-425-11	CARBON	4.7K 5% 1/4W F	R1012	1-249-417-11	CARBON	1K 5% 1/4W F
R68	1-249-425-11	CARBON	4.7K 5% 1/4W F	R1013	1-249-437-11	CARBON	47K 5% 1/4W
				R1014	1-249-416-11	CARBON	820 5% 1/4W F

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Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R1015	1-247-897-11	CARBON	560K 5% 1/4W	R1344	1-249-427-11	CARBON	6.8K 5% 1/4W F
R1016	1-249-437-11	CARBON	47K 5% 1/4W	R1345	1-249-427-11	CARBON	6.8K 5% 1/4W F
R1017	1-249-409-11	CARBON	220 5% 1/4W F	R1346	1-249-438-11	CARBON	56K 5% 1/4W
R1018	1-249-441-11	CARBON	100K 5% 1/4W	R1347	1-249-437-11	CARBON	47K 5% 1/4W
R1021	1-249-437-11	CARBON	47K 5% 1/4W	R1348	1-249-429-11	CARBON	10K 5% 1/4W
R1023	1-249-437-11	CARBON	47K 5% 1/4W	R1349	1-249-429-11	CARBON	10K 5% 1/4W
R1024	1-249-427-11	CARBON	6.8K 5% 1/4W F	R1363	1-249-389-11	CARBON	4.7 5% 1/4W F
R1025	1-249-441-11	CARBON	100K 5% 1/4W	R1364	1-249-389-11	CARBON	4.7 5% 1/4W F
R1026	1-249-427-11	CARBON	6.8K 5% 1/4W F	R1370	1-249-417-11	CARBON	1K 5% 1/4W F (AEP, IT, G)
R1031	1-249-425-11	CARBON	4.7K 5% 1/4W F	R1371	1-249-423-11	CARBON	3.3K 5% 1/4W F
R1036	1-247-852-11	CARBON	7.5K 5% 1/4W	△R1380	1-215-890-11	METAL OXIDE	470 5% 2W F (UK)
R1038	1-249-425-11	CARBON	4.7K 5% 1/4W F	△R1380	1-215-891-11	METAL OXIDE	680 5% 2W F (AEP, IT, G, EE, CIS)
R1039	1-249-441-11	CARBON	100K 5% 1/4W	R1381	1-249-410-11	CARBON	270 5% 1/4W F
R1040	1-247-889-00	CARBON	270K 5% 1/4W	R1382	1-249-410-11	CARBON	270 5% 1/4W F
R1041	1-249-433-11	CARBON	22K 5% 1/4W	R1383	1-249-410-11	CARBON	270 5% 1/4W F
R1042	1-249-433-11	CARBON	22K 5% 1/4W	R1384	1-249-410-11	CARBON	270 5% 1/4W F
R1043	1-249-433-11	CARBON	22K 5% 1/4W	R1385	1-249-389-11	CARBON	4.7 5% 1/4W F (IT, G)
R1044	1-249-433-11	CARBON	22K 5% 1/4W	R1386	1-249-389-11	CARBON	4.7 5% 1/4W F (IT, G)
R1045	1-249-413-11	CARBON	470 5% 1/4W F	< VARIABLE RESISTOR >			
R1046	1-249-413-11	CARBON	470 5% 1/4W F	RV1	1-238-601-11	RES, ADJ, CARBON	22K
R1047	1-249-413-11	CARBON	470 5% 1/4W F	RV2	1-238-600-11	RES, ADJ, CARBON	10K
R1048	1-249-429-11	CARBON	10K 5% 1/4W	< RELAY >			
R1051	1-249-417-11	CARBON	1K 5% 1/4W F	RY1201	1-515-920-11	RELAY (24V)	
R1052	1-247-903-00	CARBON	1M 5% 1/4W	< TRANSFORMER >			
R1058	1-249-409-11	CARBON	220 5% 1/4W F (IT, G)	T1	1-235-126-00	ENCAPSULATED COMPONENT	(IT, G)
R1061	1-249-417-11	CARBON	1K 5% 1/4W F (IT, G)	< TERMINAL >			
R1062	1-249-417-11	CARBON	1K 5% 1/4W F	* TM1	1-537-264-11	TERMINAL BOARD (ANTENNA) (UK)	
R1063	1-249-437-11	CARBON	47K 5% 1/4W	* TM1	1-537-288-11	TERMINAL BOARD, ANTENNA (PAL) (ANTENNA)	
R1064	1-249-416-11	CARBON	820 5% 1/4W F			(AEP, IT, G, EE, CIS)	
R1065	1-247-897-11	CARBON	560K 5% 1/4W	* TM1301	1-537-327-11	TERMINAL BOARD (SPEAKER)	
R1066	1-249-437-11	CARBON	47K 5% 1/4W	< VIBRATOR >			
R1067	1-249-409-11	CARBON	220 5% 1/4W F	X1	1-579-900-21	VIBRATOR, CRYSTAL (4.332MHz) (AEP, IT, G)	
R1068	1-249-441-11	CARBON	100K 5% 1/4W	X2	1-577-358-21	VIBRATOR, CERAMIC (4MHz) (AEP, IT, G)	
R1071	1-249-437-11	CARBON	47K 5% 1/4W	XT51	1-577-126-31	VIBRATOR, CRYSTAL (7.2MHz)	
R1073	1-249-437-11	CARBON	47K 5% 1/4W	*****			
R1074	1-249-427-11	CARBON	6.8K 5% 1/4W F	*****			
R1075	1-249-441-11	CARBON	100K 5% 1/4W	*****			
R1076	1-249-427-11	CARBON	6.8K 5% 1/4W F	*****			
R1086	1-247-852-11	CARBON	7.5K 5% 1/4W	*****			
R1088	1-249-425-11	CARBON	4.7K 5% 1/4W F	*****			
R1089	1-249-441-11	CARBON	100K 5% 1/4W	*****			
R1090	1-247-889-00	CARBON	270K 5% 1/4W	*****			
R1313	1-249-389-11	CARBON	4.7 5% 1/4W F	*****			
R1314	1-249-389-11	CARBON	4.7 5% 1/4W F	*****			
R1335	1-249-389-11	CARBON	4.7 5% 1/4W F (IT, G)	*****			
R1336	1-249-389-11	CARBON	4.7 5% 1/4W F (IT, G)	*****			
R1341	1-249-429-11	CARBON	10K 5% 1/4W	*****			
R1342	1-249-441-11	CARBON	100K 5% 1/4W	*****			
R1343	1-249-436-11	CARBON	39K 5% 1/4W	*****			

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MAIN TC

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark	
*	A-4365-150-A	MAIN TC BOARD, COMPLETE (UK)	*****	CN905	1-580-783-11	CONNECTOR, BOARD TO BOARD		
*	A-4365-942-A	MAIN TC BOARD, COMPLETE(AEP, IT, G, EE, CIS)	*****	CN906	1-580-783-11	CONNECTOR, BOARD TO BOARD		
*	4-942-204-01	PLATE, GROUND		CN907	1-580-783-11	CONNECTOR, BOARD TO BOARD		
		< CAPACITOR >		* CN908	1-568-850-11	SOCKET, CONNECTOR 7P		
C722	1-137-368-11	FILM	0.0047uF 5%	50V	* CN909	1-568-850-11	SOCKET, CONNECTOR 7P	
C723	1-162-291-31	CERAMIC	560PF	10%	* CN910	1-568-852-11	SOCKET, CONNECTOR 9P	
C726	1-137-399-11	FILM	0.1uF	5%	* CN911	1-568-856-11	SOCKET, CONNECTOR 13P	
C727	1-126-791-11	ELECT	10uF	20%				
C728	1-124-903-11	ELECT	1uF	20%	* CN912	1-568-449-11	HOUSING, CONNECTOR(PC BOARD)3P	
C729	1-124-465-00	ELECT	0.47uF	20%				
C730	1-124-907-11	ELECT	10uF	20%				
C731	1-164-159-11	CERAMIC	0.1uF					
C732	1-126-791-11	ELECT	10uF	20%				
C741	1-124-903-11	ELECT	1uF	20%				
C742	1-126-791-11	ELECT	10uF	20%				
C822	1-137-368-11	FILM	0.0047uF	5%				
C823	1-162-291-31	CERAMIC	560PF	10%				
C826	1-137-399-11	FILM	0.1uF	5%				
C827	1-124-907-11	ELECT	10uF	20%				
C828	1-124-903-11	ELECT	1uF	20%				
C829	1-124-902-00	ELECT	0.47uF	20%				
C830	1-124-907-11	ELECT	10uF	20%				
C831	1-161-377-00	CERAMIC	0.0047uF	20%				
C832	1-161-375-00	CERAMIC	0.0022uF	20%				
C833	1-124-902-00	ELECT	0.47uF	20%				
C841	1-124-903-11	ELECT	1uF	20%				
C842	1-124-907-11	ELECT	10uF	20%				
C901	1-124-443-00	ELECT	100uF	20%				
C902	1-124-471-00	ELECT	1000uF	20%				
C903	1-124-443-00	ELECT	100uF	20%				
C910	1-124-907-11	ELECT	10uF	20%				
C911	1-124-907-11	ELECT	10uF	20%				
C912	1-124-120-11	ELECT	220uF	20%				
C914	1-124-584-00	ELECT	100uF	20%				
C916	1-124-443-00	ELECT	100uF	20%				
C917	1-124-443-00	ELECT	100uF	20%				
C918	1-124-443-00	ELECT	100uF	20%				
C956	1-162-290-31	CERAMIC	470PF	10%				
C957	1-162-290-31	CERAMIC	470PF	10%				
		< CONNECTOR >		R720	1-215-451-00	METAL	18K 1% 1/6W	
* CN901	1-568-945-11	PIN, CONNECTOR 7P		R721	1-249-430-11	CARBON	12K 5% 1/4W	
CN902	1-764-342-11	PIN, CONNECTOR (PCB) (L TYPE) 5P		R722	1-249-431-11	CARBON	15K 5% 1/4W	
CN904	1-764-339-11	PIN, CONNECTOR (PCB) (L TYPE) 2P		R723	1-249-425-11	CARBON	4.7K 5% 1/4W F	
				R724	1-249-428-11	CARBON	8.2K 5% 1/4W F	
				R725	1-249-429-11	CARBON	10K 5% 1/4W	
				R727	1-249-429-11	CARBON	10K 5% 1/4W	
				R730	1-249-429-11	CARBON	10K 5% 1/4W	
				R731	1-249-425-11	CARBON	4.7K 5% 1/4W F	
				R732	1-249-429-11	CARBON	10K 5% 1/4W	
				R733	1-249-429-11	CARBON	10K 5% 1/4W	
				R734	1-249-429-11	CARBON	10K 5% 1/4W	
				R735	1-247-864-11	CARBON	24K 5% 1/4W	

MAIN TC**MD-A**

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>				
R736	1-249-429-11	CARBON	10K 5% 1/4W	R937	1-249-429-11	CARBON	10K 5% 1/4W				
R737	1-249-429-11	CARBON	10K 5% 1/4W	R938	1-249-429-11	CARBON	10K 5% 1/4W				
R738	1-249-429-11	CARBON	10K 5% 1/4W	R939	1-249-429-11	CARBON	10K 5% 1/4W				
R741	1-249-421-11	CARBON	2.2K 5% 1/4W F	R940	1-249-429-11	CARBON	10K 5% 1/4W				
R742	1-249-428-11	CARBON	8.2K 5% 1/4W F	R941	1-249-429-11	CARBON	10K 5% 1/4W				
R743	1-247-840-00	CARBON	2.4K 5% 1/4W	R942	1-249-441-11	CARBON	100K 5% 1/4W				
R744	1-249-433-11	CARBON	22K 5% 1/4W	R943	1-249-441-11	CARBON	100K 5% 1/4W				
R745	1-249-417-11	CARBON	1K 5% 1/4W F	R958	1-247-807-31	CARBON	100 5% 1/4W				
R821	1-249-430-11	CARBON	12K 5% 1/4W	R959	1-249-381-11	CARBON	1 5% 1/4W F				
R822	1-249-431-11	CARBON	15K 5% 1/4W	R960	1-249-381-11	CARBON	1 5% 1/4W F				
R823	1-249-425-11	CARBON	4.7K 5% 1/4W F	R968	1-247-807-31	CARBON	100 5% 1/4W				
R824	1-249-428-11	CARBON	8.2K 5% 1/4W F	R969	1-249-381-11	CARBON	1 5% 1/4W F				
R825	1-247-882-11	CARBON	130K 5% 1/4W	R970	1-249-381-11	CARBON	1 5% 1/4W F				
R826	1-247-866-11	CARBON	30K 5% 1/4W	R971	1-249-429-11	CARBON	10K 5% 1/4W				
R829	1-249-429-11	CARBON	10K 5% 1/4W	R972	1-249-425-11	CARBON	4.7K 5% 1/4W F				
R830	1-249-432-11	CARBON	18K 5% 1/4W	R973	1-249-434-11	CARBON	27K 5% 1/4W				
R831	1-247-885-00	CARBON	180K 5% 1/4W	R974	1-249-429-11	CARBON	10K 5% 1/4W				
R841	1-249-421-11	CARBON	2.2K 5% 1/4W F	R976	1-249-425-11	CARBON	4.7K 5% 1/4W F				
R842	1-249-428-11	CARBON	8.2K 5% 1/4W F	R977	1-249-434-11	CARBON	27K 5% 1/4W				
R843	1-247-840-00	CARBON	2.4K 5% 1/4W	< VARIABLE RESISTOR >							
R844	1-249-433-11	CARBON	22K 5% 1/4W	RV701 1-230-496-11 RES, ADJ, CARBON 10K							
R845	1-249-417-11	CARBON	1K 5% 1/4W F	RV801 1-230-496-11 RES, ADJ, CARBON 10K							
R901	1-247-807-31	CARBON	100 5% 1/4W	< VIBRATOR >							
R902	1-249-389-11	CARBON	4.7 5% 1/4W F	X901 1-577-358-21 VIBRATOR, CERAMIC (4MHz)							
R907	1-249-429-11	CARBON	10K 5% 1/4W	*****							
R908	1-247-903-00	CARBON	1M 5% 1/4W	*							
R909	1-247-895-00	CARBON	470K 5% 1/4W	A-2006-623-A MD-A BOARD, COMPLETE (RA12AL)							
R910	1-247-895-00	CARBON	470K 5% 1/4W	*****							
R911	1-249-410-11	CARBON	270 5% 1/4W F	*****							
R912	1-249-410-11	CARBON	270 5% 1/4W F	< CAPACITOR >							
R914	1-249-411-11	CARBON	330 5% 1/4W	C11 1-163-131-00 CERAMIC CHIP							
R915	1-249-411-11	CARBON	330 5% 1/4W	390PF 5% 50V							
R917	1-249-411-11	CARBON	330 5% 1/4W	C12 1-136-157-00 FILM							
R918	1-249-417-11	CARBON	1K 5% 1/4W F	0.022uF 5% 50V							
R919	1-249-429-11	CARBON	10K 5% 1/4W	C13 1-124-234-00 ELECT							
R920	1-249-429-11	CARBON	10K 5% 1/4W	22uF 20% 16V							
R921	1-249-421-11	CARBON	2.2K 5% 1/4W F	C18 1-163-117-00 CERAMIC CHIP							
R922	1-249-421-11	CARBON	2.2K 5% 1/4W F	100PF 5% 50V							
R923	1-249-429-11	CARBON	10K 5% 1/4W	C21 1-163-131-00 CERAMIC CHIP							
R926	1-249-429-11	CARBON	10K 5% 1/4W	390PF 5% 50V							
R927	1-249-425-11	CARBON	4.7K 5% 1/4W F	C22 1-136-157-00 FILM							
R928	1-249-429-11	CARBON	10K 5% 1/4W	0.022uF 5% 50V							
R929	1-249-415-11	CARBON	680 5% 1/4W F	C23 1-124-234-00 ELECT							
R930	1-249-414-11	CARBON	560 5% 1/4W F	22uF 20% 16V							
R931	1-249-415-11	CARBON	680 5% 1/4W F	C28 1-163-117-00 CERAMIC CHIP							
R932	1-249-429-11	CARBON	10K 5% 1/4W	100PF 5% 50V							
R933	1-249-415-11	CARBON	680 5% 1/4W F	C31 1-124-234-00 ELECT							
R934	1-249-429-11	CARBON	10K 5% 1/4W	22uF 20% 16V							
R935	1-249-415-11	CARBON	680 5% 1/4W F	C32 1-124-234-00 ELECT							
R936	1-249-429-11	CARBON	10K 5% 1/4W	22uF 20% 16V							
< CONNECTOR >											
* CNJ31 1-580-782-11 CONNECTOR, BOARD TO BOARD											
* CNJ72 1-580-411-11 SOCKET, CONNECTOR 4P											
* CNP32 1-580-772-11 PIN, CONNECTOR (PC BOARD) 4P											
* CNP71 1-564-719-11 PIN, CONNECTOR (SMALL TYPE) 3P											

MD-A

MD-B

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
< IC >							
IC31A	8-759-106-02	IC	UPC4570G2	C23	1-136-153-00	FILM	0.01uF 5% 50V
< JUMPER RESISTOR >							
JW1	1-216-295-00	METAL CHIP	0 5% 1/10W	C24	1-126-177-11	ELECT	100uF 20% 10V
JW51	1-216-296-91	METAL GLAZE	0 5% 1/8W	C25	1-124-234-00	ELECT	22uF 20% 16V
JW52	1-216-296-91	METAL GLAZE	0 5% 1/8W	C26	1-136-273-91	FILM	75PF 5% 630V
JW53	1-216-296-91	METAL GLAZE	0 5% 1/8W	C27	1-164-080-11	CERAMIC	390PF 10% 50V
JW54	1-216-296-91	METAL GLAZE	0 5% 1/8W	C28	1-163-103-00	CERAMIC CHIP	27PF 5% 50V
< TRANSISTOR >							
Q71A	8-729-216-22	TRANSISTOR	2SA1162-G	C31	1-124-234-00	ELECT	22uF 20% 16V
< RESISTOR >							
R11	1-216-099-00	METAL CHIP	120K 5% 1/10W	C32	1-124-234-00	ELECT	22uF 20% 16V
R12	1-216-025-00	METAL CHIP	100 5% 1/10W	C33	1-124-234-00	ELECT	22uF 20% 16V
R13	1-216-100-00	METAL GLAZE	130K 5% 1/10W	C51	1-163-019-00	CERAMIC CHIP	0.0068uF 10% 50V
R14	1-216-067-00	METAL CHIP	5.6K 5% 1/10W	C52	1-163-019-00	CERAMIC CHIP	0.0068uF 10% 50V
R21	1-216-099-00	METAL CHIP	120K 5% 1/10W	C53	1-163-022-00	CERAMIC CHIP	0.012uF 10% 50V
R22	1-216-025-00	METAL CHIP	100 5% 1/10W	C54	1-136-559-11	FILM	0.0047uF 5% 630V
R23	1-216-100-00	METAL GLAZE	130K 5% 1/10W	C56	1-164-505-11	CERAMIC CHIP	2.2uF 16V
R24	1-216-067-00	METAL CHIP	5.6K 5% 1/10W	C57	1-164-346-11	CERAMIC CHIP	1uF 16V
R31	1-216-033-00	METAL CHIP	220 5% 1/10W	C58	1-163-024-00	CERAMIC CHIP	0.018uF 10% 50V
R32	1-216-033-00	METAL CHIP	220 5% 1/10W	C72	1-124-499-11	ELECT, NONPOLAR	1uF 20% 50V
< CONNECTOR >							
* CNJ31	1-580-782-11	CONNECTOR, BOARD TO BOARD					
* CNJ33	1-580-782-11	CONNECTOR, BOARD TO BOARD					
* CNJ72	1-580-411-11	SOCKET, CONNECTOR 4P					
* CNP32	1-580-781-11	PIN, CONNECTOR (PC BOARD) 7P					
* CNP71	1-564-719-11	PIN, CONNECTOR (SMALL TYPE) 3P					
< IC >							
IC31B	8-759-249-21	IC	uPC1330GR				
IC32	8-759-106-02	IC	UPC4570G2				
< JUMPER RESISTOR >							
< VARIABLE RESISTOR >							
RV11A	1-241-761-11	RES, ADJ, CARBON 1K		JW1	1-216-295-00	METAL CHIP	0 5% 1/10W
RV21A	1-241-761-11	RES, ADJ, CARBON 1K		JW2	1-216-295-00	METAL CHIP	0 5% 1/10W
RV71A	1-241-630-11	RES, ADJ, CARBON 10K		JW11	1-216-296-91	METAL GLAZE	0 5% 1/8W
RV72A	1-241-630-11	RES, ADJ, CARBON 10K		JW12	1-216-296-91	METAL GLAZE	0 5% 1/8W

*	A-2007-134-A	MD-B BOARD, COMPLETE (RB53A)		JW13	1-216-296-91	METAL GLAZE	0 5% 1/8W

< CAPACITOR >							
C11	1-163-131-00	CERAMIC CHIP	390PF 5% 50V	JW14	1-216-296-91	METAL GLAZE	0 5% 1/8W
C12	1-163-117-00	CERAMIC CHIP	100PF 5% 50V	JW15	1-216-296-91	METAL GLAZE	0 5% 1/8W
C13	1-136-153-00	FILM	0.01uF 5% 50V	JW16	1-216-296-91	METAL GLAZE	0 5% 1/8W
C14	1-126-177-11	ELECT	100uF 20% 10V	JW17	1-216-296-91	METAL GLAZE	0 5% 1/8W
C15	1-124-234-00	ELECT	22uF 20% 16V	JW18	1-216-296-91	METAL GLAZE	0 5% 1/8W
C16	1-136-273-91	FILM	75PF 5% 630V	JW19	1-216-296-91	METAL GLAZE	0 5% 1/8W
C17	1-164-080-11	CERAMIC	390PF 10% 50V	JW20	1-216-296-91	METAL GLAZE	0 5% 1/8W
C18	1-163-103-00	CERAMIC CHIP	27PF 5% 50V	JW21	1-216-296-91	METAL GLAZE	0 5% 1/8W
C21	1-163-131-00	CERAMIC CHIP	390PF 5% 50V	JW22	1-216-296-91	METAL GLAZE	0 5% 1/8W
C22	1-163-117-00	CERAMIC CHIP	100PF 5% 50V	JW23	1-216-296-91	METAL GLAZE	0 5% 1/8W
JW24							
JW25	1-216-296-91	METAL GLAZE	0 5% 1/8W	JW26	1-216-296-91	METAL GLAZE	0 5% 1/8W
JW27	1-216-296-91	METAL GLAZE	0 5% 1/8W				

MD-B **PANEL**

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>			<u>Remark</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>			<u>Remark</u>
< COIL >											
L11	1-410-780-11	INDUCTOR	27mH			*	A-4369-169-A	PANEL BOARD, COMPLETE (AEP)			
L21	1-410-780-11	INDUCTOR	27mH								
< TRANSISTOR >											
Q51	8-729-011-92	TRANSISTOR	2SC2001TP-K1K2			*	A-4369-303-A	PANEL BOARD, COMPLETE (IT)			
Q52	8-729-011-92	TRANSISTOR	2SC2001TP-K1K2								
Q53	8-729-111-29	TRANSISTOR	2SD1616A-K			*	A-4369-899-A	PANEL BOARD, COMPLETE (G)			
Q71B	8-729-216-22	TRANSISTOR	2SA1162-G								
< RESISTOR >											
R11	1-216-099-00	METAL CHIP	120K 5%	1/10W		C601	1-124-442-00	ELECT	330uF	20%	6.3V
R12	1-216-033-00	METAL CHIP	220 5%	1/10W		C602	1-124-442-00	ELECT	330uF	20%	6.3V
R13	1-216-081-00	METAL CHIP	22K 5%	1/10W		C603	1-161-379-00	CERAMIC	0.01uF	20%	25V
R14	1-216-075-00	METAL CHIP	12K 5%	1/10W		C604	1-136-169-00	FILM	0.22uF	5%	50V
R15	1-216-107-00	METAL CHIP	270K 5%	1/10W		C605	1-164-159-11	CERAMIC	0.1uF		50V
R16	1-249-430-11	CARBON	12K 5%	1/4W		C607	1-102-949-00	CERAMIC	12PF	5%	50V
R21	1-216-099-00	METAL CHIP	120K 5%	1/10W		C608	1-102-945-00	CERAMIC	8.0PF	+/-0.5PF	50V
R22	1-216-033-00	METAL CHIP	220 5%	1/10W		C609	1-164-159-11	CERAMIC	0.1uF		50V
R23	1-216-081-00	METAL CHIP	22K 5%	1/10W		C610	1-161-379-00	CERAMIC	0.01uF	20%	25V
R24	1-216-075-00	METAL CHIP	12K 5%	1/10W		C611	1-124-261-00	ELECT	10uF	20%	50V
R25	1-216-107-00	METAL CHIP	270K 5%	1/10W		C612	1-164-159-11	CERAMIC	0.1uF		50V
R26	1-249-430-11	CARBON	12K 5%	1/4W		C613	1-124-903-11	ELECT	1uF	20%	50V
R31	1-216-033-00	METAL CHIP	220 5%	1/10W		C614	1-124-903-11	ELECT	1uF	20%	50V
R32	1-216-033-00	METAL CHIP	220 5%	1/10W		C615	1-164-159-11	CERAMIC	0.1uF		50V
R33	1-216-073-00	METAL CHIP	10K 5%	1/10W		C1101	1-124-589-11	ELECT	47uF	20%	16V
R41	1-249-393-11	CARBON	10 5%	1/4W F		C1102	1-162-219-31	CERAMIC	68PF	5%	50V
R42	1-249-393-11	CARBON	10 5%	1/4W F		C1103	1-162-282-31	CERAMIC	100PF	10%	50V
R51	1-216-075-00	METAL CHIP	12K 5%	1/10W		C1104	1-126-157-11	ELECT	10uF	20%	16V
R52	1-216-075-00	METAL CHIP	12K 5%	1/10W		C1106	1-124-252-00	ELECT	0.33uF	20%	50V
R53	1-216-073-00	METAL CHIP	10K 5%	1/10W		C1107	1-124-463-00	ELECT	0.1uF	20%	50V
R54	1-216-309-00	METAL CHIP	5.6 5%	1/10W		C1108	1-126-301-11	ELECT	1uF	20%	50V
R55	1-216-309-00	METAL CHIP	5.6 5%	1/10W		C1109	1-126-301-11	ELECT	1uF	20%	50V
R56	1-216-298-00	METAL CHIP	2.2 5%	1/10W		C1151	1-124-589-11	ELECT	47uF	20%	16V
R71	1-216-082-00	METAL GLAZE	24K 5%	1/10W		C1152	1-162-219-31	CERAMIC	68PF	5%	50V
R72	1-216-081-00	METAL CHIP	22K 5%	1/10W		C1153	1-162-282-31	CERAMIC	100PF	10%	50V
R73	1-216-089-91	METAL GLAZE	47K 5%	1/10W		C1154	1-126-157-11	ELECT	10uF	20%	16V
R74	1-216-089-91	METAL GLAZE	47K 5%	1/10W		C1156	1-124-252-00	ELECT	0.33uF	20%	50V
< VARIABLE RESISTOR >											
RV11B	1-241-761-11	RES, ADJ, CARBON	1K			C1157	1-124-463-00	ELECT	0.1uF	20%	50V
RV12B	1-238-551-11	RES, ADJ, CARBON	220K			C1158	1-126-301-11	ELECT	1uF	20%	50V
RV21	1-241-761-11	RES, ADJ, CARBON	1K			C1159	1-126-301-11	ELECT	1uF	20%	50V
RV22	1-238-551-11	RES, ADJ, CARBON	220K								
RV71B	1-241-630-11	RES, ADJ, CARBON	10K								
RV72B	1-241-630-11	RES, ADJ, CARBON	10K								
< TRANSFORMER >											
T51	1-406-419-11	COIL, BIAS OSCILLATION				C1501	1-164-159-11	CERAMIC	0.1uF		50V
						C1502	1-164-159-11	CERAMIC	0.1uF		50V
						C1503	1-164-159-11	CERAMIC	0.1uF		50V
						C1504	1-126-301-11	ELECT	1uF	20%	50V
						C1505	1-126-301-11	ELECT	1uF	20%	50V
						C1511	1-164-159-11	CERAMIC	0.1uF		50V
						C1512	1-164-159-11	CERAMIC	0.1uF		50V
						C1513	1-126-157-11	ELECT	10uF	20%	16V
						C1514	1-126-177-11	ELECT	100uF	20%	10V
						C1515	1-164-159-11	CERAMIC	0.1uF		50V

PANEL

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>		
C1516	1-164-159-11	CERAMIC	0.1uF	50V	D1560	8-719-046-46	DIODE	SEL5221S-TH8C (DANCE 2)	
C1517	1-162-294-31	CERAMIC	0.001uF	10%	50V	D1561	8-719-046-46	DIODE	SEL5221S-TH8C (VOCAL 3)
C1531	1-126-157-11	ELECT	10uF	20%	16V	D1562	8-719-046-46	DIODE	SEL5221S-TH8C (POPS 4)
C1532	1-164-159-11	CERAMIC	0.1uF	50V	D1563	8-719-046-46	DIODE	SEL5221S-TH8C (BGM 5)	
C1533	1-162-306-11	CERAMIC	0.01uF	20%	16V	D1564	8-719-046-46	DIODE	SEL5221S-TH8C (EQUALIZER)
C1534	1-164-159-11	CERAMIC	0.1uF	50V	D1565	8-719-046-46	DIODE	SEL5221S-TH8C (MEMORY)	
C1535	1-162-306-11	CERAMIC	0.01uF	20%	16V	D1566	8-719-046-46	DIODE	SEL5221S-TH8C (VOLUME)
C1536	1-164-159-11	CERAMIC	0.1uF	50V	D1567	8-719-046-46	DIODE	SEL5221S-TH8C (P. FILE)	
C1537	1-162-306-11	CERAMIC	0.01uF	20%	16V	D1581	8-719-987-63	DIODE	1N4148M
C1538	1-104-905-11	CAP, DOUBLE LAYERS	0.22F	5.5V	D1582	8-719-987-63	DIODE	1N4148M	
C1541	1-126-177-11	ELECT	100uF	20%	10V	D1583	8-719-987-63	DIODE	1N4148M
C1551	1-126-301-11	ELECT	1uF	20%	50V	D1584	8-719-987-63	DIODE	1N4148M
C1552	1-126-157-11	ELECT	10uF	20%	16V	D1585	8-719-987-63	DIODE	1N4148M
C1553	1-126-157-11	ELECT	10uF	20%	16V	D1586	8-719-987-63	DIODE	1N4148M
					D1587	8-719-987-63	DIODE	1N4148M	
< CONNECTOR >									
CN601	1-750-420-11	CONNECTOR, FFC/FPC 15P		D1589	8-719-987-63	DIODE	1N4148M		
CN1501	1-750-430-11	CONNECTOR, FFC/FPC 25P							
< COMPOSITION CIRCUIT BLOCK >									
CP1501	1-232-998-11	COMPOSITION CIRCUIT BLOCK	100K	FL601	1-517-265-11	INDICATOR TUBE, FLUORESCENT			
CP1502	1-232-998-11	COMPOSITION CIRCUIT BLOCK	100K	FL1501	1-517-266-21	INDICATOR TUBE, FLUORESCENT			
CP1503	1-232-998-11	COMPOSITION CIRCUIT BLOCK	100K						
CP1504	1-232-998-11	COMPOSITION CIRCUIT BLOCK	100K						
< DIODE >									
D601	8-719-200-82	DIODE	11ES2	IC601	8-759-519-16	IC	uPD78043GF-079-3B9		
D602	8-719-987-63	DIODE	1N4148M	IC602	8-749-920-83	IC	GP1U52XB		
D603	8-719-987-63	DIODE	1N4148M	IC1101	8-759-634-51	IC	M5218AP		
D604	8-719-987-63	DIODE	1N4148M	IC1501	8-759-253-53	IC	uPD78042GF056-3B9		
D1511	8-719-987-63	DIODE	1N4148M	IC1502	8-759-991-11	IC	XR1091DCP		
D1512	8-719-987-63	DIODE	1N4148M	IC1503	8-759-635-63	IC	M51943BSL		
D1513	8-719-987-63	DIODE	1N4148M	IC1505	8-759-917-18	IC	SN74HC04AN		
D1514	8-719-987-63	DIODE	1N4148M	IC1506	8-759-916-46	IC	SN74HC139AN		
D1522	8-719-987-63	DIODE	1N4148M	IC1507	8-759-917-18	IC	SN74HC04AN		
D1523	8-719-987-63	DIODE	1N4148M						
D1531	8-719-200-82	DIODE	11ES2						
D1532	8-719-200-82	DIODE	11ES2						
D1533	8-719-987-63	DIODE	1N4148M						
D1534	8-719-987-63	DIODE	1N4148M						
D1535	8-719-987-63	DIODE	1N4148M						
D1541	8-719-987-63	DIODE	1N4148M						
D1551	8-719-200-82	DIODE	11ES2						
D1552	8-719-200-82	DIODE	11ES2						
D1553	8-719-987-63	DIODE	1N4148M						
D1554	8-719-046-46	DIODE	SEL5221S-TH8C (VIDEO)						
D1555	8-719-046-46	DIODE	SEL5221S-TH8C (TAPE)						
D1556	8-719-046-46	DIODE	SEL5221S-TH8C (CD)						
D1557	8-719-046-46	DIODE	SEL5221S-TH8C (TUNER)						
D1558	8-719-046-46	DIODE	SEL5221S-TH8C (PHONO)						
D1559	8-719-046-46	DIODE	SEL5221S-TH8C (HALL 1)						
				Q1153	8-729-141-26	TRANSISTOR	2SC3622A-LK		
				Q1521	8-729-119-78	TRANSISTOR	2SC403SP-51		
				Q1531	8-729-119-78	TRANSISTOR	2SC403SP-51		
				Q1545	8-729-900-36	TRANSISTOR	DTC124ES		
				Q1546	8-729-900-63	TRANSISTOR	DTA124ES		
				Q1551	8-729-119-76	TRANSISTOR	2SA1175-HFE		

PANEL

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
< RESISTOR >											
R602	1-249-417-11	CARBON	1K	5%	1/4W F	R656	1-249-410-11	CARBON	270	5%	1/4W F
R603	1-249-417-11	CARBON	1K	5%	1/4W F	R657	1-249-411-11	CARBON	330	5%	1/4W
R604	1-249-417-11	CARBON	1K	5%	1/4W F	R658	1-249-413-11	CARBON	470	5%	1/4W F
R605	1-249-417-11	CARBON	1K	5%	1/4W F	R659	1-249-414-11	CARBON	560	5%	1/4W F
R606	1-249-429-11	CARBON	10K	5%	1/4W	R660	1-249-416-11	CARBON	820	5%	1/4W F
R607	1-249-423-11	CARBON	3.3K	5%	1/4W F	R661	1-249-419-11	CARBON	1.5K	5%	1/4W F
R608	1-249-421-11	CARBON	2.2K	5%	1/4W F	R662	1-247-807-31	CARBON	100	5%	1/4W
R609	1-249-429-11	CARBON	10K	5%	1/4W	R663	1-249-406-11	CARBON	120	5%	1/4W F
R610	1-249-417-11	CARBON	1K	5%	1/4W F	R664	1-249-406-11	CARBON	120	5%	1/4W F
R611	1-249-417-11	CARBON	1K	5%	1/4W F	R665	1-247-811-31	CARBON	150	5%	1/4W
R612	1-249-417-11	CARBON	1K	5%	1/4W F	R666	1-249-408-11	CARBON	180	5%	1/4W F
R613	1-249-417-11	CARBON	1K	5%	1/4W F	R667	1-249-409-11	CARBON	220	5%	1/4W F
R614	1-249-417-11	CARBON	1K	5%	1/4W F	R668	1-249-410-11	CARBON	270	5%	1/4W F
R615	1-249-413-11	CARBON	470	5%	1/4W F	R669	1-249-411-11	CARBON	330	5%	1/4W
R619	1-249-437-11	CARBON	47K	5%	1/4W	R670	1-249-413-11	CARBON	470	5%	1/4W F
R620	1-249-433-11	CARBON	22K	5%	1/4W	R671	1-249-414-11	CARBON	560	5%	1/4W F
R621	1-249-433-11	CARBON	22K	5%	1/4W	R672	1-249-416-11	CARBON	820	5%	1/4W F
R622	1-249-417-11	CARBON	1K	5%	1/4W F	R673	1-249-418-11	CARBON	1.2K	5%	1/4W F
R623	1-249-409-11	CARBON	220	5%	1/4W F	R674	1-249-421-11	CARBON	2.2K	5%	1/4W F
R624	1-249-425-11	CARBON	4.7K	5%	1/4W F	R675	1-249-424-11	CARBON	3.9K	5%	1/4W F
R625	1-249-441-11	CARBON	100K	5%	1/4W (AEP, G)	R676	1-249-441-11	CARBON	100K	5%	1/4W (IT)
R626	1-249-441-11	CARBON	100K	5%	1/4W (IT, G)	R677	1-249-441-11	CARBON	100K	5%	1/4W (AEP)
R627	1-249-441-11	CARBON	100K	5%	1/4W	R678	1-249-417-11	CARBON	1K	5%	1/4W F
R628	1-249-441-11	CARBON	100K	5%	1/4W	R679	1-249-417-11	CARBON	1K	5%	1/4W F
R629	1-249-441-11	CARBON	100K	5%	1/4W (G)	R680	1-249-417-11	CARBON	1K	5%	1/4W F
R630	1-249-441-11	CARBON	100K	5%	1/4W (IT, G)	R681	1-249-417-11	CARBON	1K	5%	1/4W F
R631	1-249-441-11	CARBON	100K	5%	1/4W	R682	1-249-429-11	CARBON	10K	5%	1/4W
R632	1-249-441-11	CARBON	100K	5%	1/4W	R683	1-249-417-11	CARBON	1K	5%	1/4W F
R633	1-249-441-11	CARBON	100K	5%	1/4W	R1101	1-249-417-11	CARBON	1K	5%	1/4W F
R634	1-249-441-11	CARBON	100K	5%	1/4W	R1102	1-247-903-00	CARBON	1M	5%	1/4W
R635	1-249-441-11	CARBON	100K	5%	1/4W	R1103	1-249-429-11	CARBON	10K	5%	1/4W
R636	1-249-441-11	CARBON	100K	5%	1/4W	R1104	1-249-421-11	CARBON	2.2K	5%	1/4W F
R637	1-249-441-11	CARBON	100K	5%	1/4W	R1106	1-249-421-11	CARBON	2.2K	5%	1/4W F
R638	1-249-441-11	CARBON	100K	5%	1/4W	R1107	1-249-434-11	CARBON	27K	5%	1/4W
R640	1-249-419-11	CARBON	1.5K	5%	1/4W F	R1108	1-247-881-00	CARBON	120K	5%	1/4W
R641	1-247-807-31	CARBON	100	5%	1/4W	R1109	1-249-427-11	CARBON	6.8K	5%	1/4W F
R642	1-249-406-11	CARBON	120	5%	1/4W F	R1110	1-249-425-11	CARBON	4.7K	5%	1/4W F
R643	1-249-406-11	CARBON	120	5%	1/4W F	R1111	1-249-435-11	CARBON	33K	5%	1/4W
R644	1-247-811-31	CARBON	150	5%	1/4W	R1112	1-249-426-11	CARBON	5.6K	5%	1/4W
R645	1-249-408-11	CARBON	180	5%	1/4W F	R1113	1-249-421-11	CARBON	2.2K	5%	1/4W F
R646	1-249-409-11	CARBON	220	5%	1/4W F	R1114	1-249-412-11	CARBON	390	5%	1/4W F
R647	1-249-410-11	CARBON	270	5%	1/4W F	R1151	1-249-417-11	CARBON	1K	5%	1/4W F
R649	1-249-419-11	CARBON	1.5K	5%	1/4W F	R1152	1-247-903-00	CARBON	1M	5%	1/4W
R650	1-247-807-31	CARBON	100	5%	1/4W	R1153	1-249-429-11	CARBON	10K	5%	1/4W
R651	1-249-406-11	CARBON	120	5%	1/4W F	R1154	1-249-421-11	CARBON	2.2K	5%	1/4W F
R652	1-249-406-11	CARBON	120	5%	1/4W F	R1156	1-249-421-11	CARBON	2.2K	5%	1/4W F
R653	1-247-811-31	CARBON	150	5%	1/4W	R1157	1-249-434-11	CARBON	27K	5%	1/4W
R654	1-249-408-11	CARBON	180	5%	1/4W F	R1158	1-247-881-00	CARBON	120K	5%	1/4W
R655	1-249-409-11	CARBON	220	5%	1/4W F	R1159	1-249-427-11	CARBON	6.8K	5%	1/4W F
						R1160	1-249-425-11	CARBON	4.7K	5%	1/4W F

PANEL

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R1161	1-249-435-11	CARBON	33K 5% 1/4W			< SWITCH >	
R1162	1-249-426-11	CARBON	5.6K 5% 1/4W	S601	1-554-303-21	SWITCH, TACTILE (POWER)	
R1163	1-249-421-11	CARBON	2.2K 5% 1/4W F	S602	1-554-303-21	SWITCH, TACTILE (SLEEP)	
R1164	1-249-412-11	CARBON	390 5% 1/4W F	S603	1-554-303-21	SWITCH, TACTILE (1)	
R1181	1-249-431-11	CARBON	15K 5% 1/4W	S604	1-554-303-21	SWITCH, TACTILE (2)	
R1501	1-249-384-11	CARBON	1.8 5% 1/6W F	S605	1-554-303-21	SWITCH, TACTILE (3)	
R1502	1-249-384-11	CARBON	1.8 5% 1/6W F	S606	1-554-303-21	SWITCH, TACTILE (4)	
R1511	1-249-419-11	CARBON	1.5K 5% 1/4W F	S607	1-554-303-21	SWITCH, TACTILE (5)	
R1512	1-249-393-11	CARBON	10 5% 1/4W F	S608	1-554-303-21	SWITCH, TACTILE (6)	
R1521	1-249-429-11	CARBON	10K 5% 1/4W	S610	1-554-303-21	SWITCH, TACTILE (7)	
R1522	1-249-429-11	CARBON	10K 5% 1/4W	S611	1-554-303-21	SWITCH, TACTILE (8)	
R1523	1-249-425-11	CARBON	4.7K 5% 1/4W F	S616	1-554-303-21	SWITCH, TACTILE (BAND)	
R1531	1-249-417-11	CARBON	1K 5% 1/4W F	S617	1-554-303-21	SWITCH, TACTILE (SHIFT)	
R1532	1-249-423-11	CARBON	3.3K 5% 1/4W F	S618	1-554-303-21	SWITCH, TACTILE (CHARACTER)	
R1533	1-249-429-11	CARBON	10K 5% 1/4W	S619	1-554-303-21	SWITCH, TACTILE (MEMORY)	
R1545	1-249-433-11	CARBON	22K 5% 1/4W	S620	1-554-303-21	SWITCH, TACTILE (STEREO/MONO)	
R1546	1-249-433-11	CARBON	22K 5% 1/4W	S621	1-554-303-21	SWITCH, TACTILE (-)	
R1551	1-249-429-11	CARBON	10K 5% 1/4W	S622	1-554-303-21	SWITCH, TACTILE (9)	
R1552	1-249-425-11	CARBON	4.7K 5% 1/4W F	S623	1-554-303-21	SWITCH, TACTILE (0)	
R1554	1-249-415-11	CARBON	680 5% 1/4W F	S624	1-554-303-21	SWITCH, TACTILE (NEXT)	
R1555	1-249-414-11	CARBON	560 5% 1/4W F	S627	1-554-303-21	SWITCH, TACTILE (PTY)	
R1556	1-249-415-11	CARBON	680 5% 1/4W F	S628	1-554-303-21	SWITCH, TACTILE (EON)	
R1557	1-249-415-11	CARBON	680 5% 1/4W F	S629	1-554-303-21	SWITCH, TACTILE (DISPLAY)	
R1558	1-249-415-11	CARBON	680 5% 1/4W F	S630	1-554-303-21	SWITCH, TACTILE (REC)	
R1559	1-249-415-11	CARBON	680 5% 1/4W F	S631	1-554-303-21	SWITCH, TACTILE (DAILY)	
R1563	1-249-429-11	CARBON	10K 5% 1/4W	S632	1-554-303-21	SWITCH, TACTILE (ONCE)	
R1564	1-249-429-11	CARBON	10K 5% 1/4W	S633	1-554-303-21	SWITCH, TACTILE (TIMER)	
R1565	1-249-429-11	CARBON	10K 5% 1/4W	S634	1-554-303-21	SWITCH, TACTILE (CLOCK)	
R1571	1-249-429-11	CARBON	10K 5% 1/4W	S636	1-554-303-21	SWITCH, TACTILE (+)	
R1572	1-249-429-11	CARBON	10K 5% 1/4W	S1551	1-554-303-21	SWITCH, TACTILE (PHONO)	
R1573	1-249-429-11	CARBON	10K 5% 1/4W	S1552	1-554-303-21	SWITCH, TACTILE (CURSOR CONTROL, DOWN)	
R1581	1-247-883-00	CARBON	150K 5% 1/4W	S1553	1-554-303-21	SWITCH, TACTILE (TUNER)	
R1582	1-249-429-11	CARBON	10K 5% 1/4W	S1554	1-554-303-21	SWITCH, TACTILE (CD)	
R1583	1-247-895-00	CARBON	470K 5% 1/4W	S1555	1-554-303-21	SWITCH, TACTILE (TAPE)	
R1591	1-247-807-31	CARBON	100 5% 1/4W	S1556	1-554-303-21	SWITCH, TACTILE (VIDEO)	
R1592	1-247-807-31	CARBON	100 5% 1/4W	S1557	1-554-303-21	SWITCH, TACTILE (CURSOR CONTROL, RIGHT)	
R1593	1-247-807-31	CARBON	100 5% 1/4W	S1558	1-554-303-21	SWITCH, TACTILE (CURSOR CONTROL, LEFT)	
R1594	1-247-807-31	CARBON	100 5% 1/4W	S1559	1-554-303-21	SWITCH, TACTILE (P. FILE)	
R1595	1-249-413-11	CARBON	470 5% 1/4W F	S1560	1-554-303-21	SWITCH, TACTILE (HALL 1)	
R1596	1-249-413-11	CARBON	470 5% 1/4W F	S1561	1-554-303-21	SWITCH, TACTILE (DANCE 2)	
R1597	1-249-413-11	CARBON	470 5% 1/4W F	S1562	1-554-303-21	SWITCH, TACTILE (EQ FLAT)	
R1598	1-249-393-11	CARBON	10 5% 1/4W F	S1563	1-554-303-21	SWITCH, TACTILE (EQUALIZER)	
	< VARIABLE RESISTOR >			S1565	1-554-303-21	SWITCH, TACTILE (DISPLAY)	
RV1181	1-223-251-11	RES, VAR, CARBON	100K/100K (SURROUND)	S1566	1-554-303-21	SWITCH, TACTILE (CURSOR CONTROL, UP)	
RV1182	1-223-251-11	RES, VAR, CARBON	100K/100K (DBS LEVEL)	S1567	1-554-303-21	SWITCH, TACTILE (MEMORY)	
RV1183	1-223-251-11	RES, VAR, CARBON	100K/100K (DBS FREQUENCY (Hz))	S1568	1-554-303-21	SWITCH, TACTILE (VOCAL 3)	
RV1184	1-223-569-11	RES, VAR, CARBON	100K (BALANCE)	S1569	1-554-303-21	SWITCH, TACTILE (POPS 4)	
				S1570	1-554-303-21	SWITCH, TACTILE (BGM 5)	

PANEL

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>			<u>Remark</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>			<u>Remark</u>	
< VIBRATOR >												
X601	1-760-096-21	VIBRATOR, CRYSTAL	(4.19MHz)			C1511	1-164-159-11	CERAMIC	0.1uF		50V	
X1501	1-577-101-11	VIBRATOR, CERAMIC	(4.19MHz)			C1512	1-164-159-11	CERAMIC	0.1uF		50V	

*	A-4369-156-A	PANEL BOARD, COMPLETE	(UK)			C1513	1-126-157-11	ELECT	10uF	20%	16V	
		*****				C1514	1-126-177-11	ELECT	100uF	20%	10V	
*	A-4369-309-A	PANEL BOARD, COMPLETE	(EE)			C1515	1-164-159-11	CERAMIC	0.1uF		50V	
		*****				C1516	1-164-159-11	CERAMIC	0.1uF		50V	
*	A-4369-903-A	PANEL BOARD, COMPLETE	(CIS)			C1517	1-162-294-31	CERAMIC	0.001uF	10%	50V	

*	4-942-301-01	HOLDER, FL TUBE				C1531	1-126-157-11	ELECT	10uF	20%	16V	
*	4-949-935-21	CUSHION-(FL)				C1532	1-164-159-11	CERAMIC	0.1uF		50V	
< CAPACITOR >												
C601	1-124-442-00	ELECT		330uF	20%	6.3V	C1534	1-164-159-11	CERAMIC	0.1uF		50V
C602	1-161-379-00	CERAMIC		0.01uF	20%	25V	C1535	1-161-379-00	CERAMIC	0.01uF	20%	25V (UK)
C603	1-124-442-00	ELECT		330uF	20%	6.3V	C1535	1-162-306-11	CERAMIC	0.01uF	20%	16V
C605	1-124-916-11	ELECT		22uF	20%	63V	C1537	1-161-379-00	CERAMIC	0.01uF	20%	25V (UK)
C606	1-162-202-31	CERAMIC		13PF	5%	50V	C1537	1-162-306-11	CERAMIC	0.01uF	20%	16V
C607	1-162-202-31	CERAMIC		13PF	5%	50V						
C608	1-126-163-11	ELECT		4.7uF	20%	50V						
C609	1-161-379-00	CERAMIC		0.01uF	20%	25V						
C610	1-161-379-00	CERAMIC		0.01uF	20%	25V						
C613	1-124-903-11	ELECT		1uF	20%	50V	< CONNECTOR >					
C614	1-124-903-11	ELECT		1uF	20%	50V	* CN601	1-750-416-11	CONNECTOR, FFC/FPC 11P			
C615	1-124-442-00	ELECT		330uF	20%	6.3V	CN1501	1-750-430-11	CONNECTOR, FFC/FPC 25P			
C1101	1-124-589-11	ELECT		47uF	20%	16V	< COMPOSITION CIRCUIT BLOCK >					
C1102	1-162-219-31	CERAMIC		68PF	5%	50V	* CP601	1-233-216-11	COMPOSITION CIRCUIT BLOCK 220PF			
C1103	1-162-282-31	CERAMIC		100PF	10%	50V	CP602	1-239-584-11	COMPOSITION CIRCUIT BLOCK 220PF			
C1104	1-126-157-11	ELECT		10uF	20%	16V	CP1501	1-232-998-11	COMPOSITION CIRCUIT BLOCK 100K			
C1106	1-124-252-00	ELECT		0.33uF	20%	50V	CP1502	1-232-998-11	COMPOSITION CIRCUIT BLOCK 100K			
C1107	1-124-463-00	ELECT		0.1uF	20%	50V	CP1503	1-232-998-11	COMPOSITION CIRCUIT BLOCK 100K			
C1108	1-126-301-11	ELECT		1uF	20%	50V	CP1504	1-232-998-11	COMPOSITION CIRCUIT BLOCK 100K			
C1109	1-126-301-11	ELECT		1uF	20%	50V	< DIODE >					
C1151	1-124-589-11	ELECT		47uF	20%	16V	D600	8-719-987-63	DIODE	1N4148M		
C1152	1-162-219-31	CERAMIC		68PF	5%	50V	D601	8-719-987-63	DIODE	1N4148M		
C1153	1-162-282-31	CERAMIC		100PF	10%	50V	D602	8-719-200-82	DIODE	11ES2		
C1154	1-126-157-11	ELECT		10uF	20%	16V	D604	8-719-987-63	DIODE	1N4148M		
C1156	1-124-252-00	ELECT		0.33uF	20%	50V	D607	8-719-987-63	DIODE	1N4148M (EE, CIS)		
C1157	1-124-463-00	ELECT		0.1uF	20%	50V	D608	8-719-987-63	DIODE	1N4148M (EE, CIS)		
C1158	1-126-301-11	ELECT		1uF	20%	50V	D614	8-719-987-63	DIODE	1N4148M		
C1159	1-126-301-11	ELECT		1uF	20%	50V	D615	8-719-987-63	DIODE	1N4148M		
C1501	1-164-159-11	CERAMIC		0.1uF		50V	D616	8-719-987-63	DIODE	1N4148M		
C1502	1-164-159-11	CERAMIC		-0.1uF		50V	D617	8-719-987-63	DIODE	1N4148M		
C1503	1-164-159-11	CERAMIC		0.1uF		50V	D618	8-719-987-63	DIODE	1N4148M		
C1504	1-126-301-11	ELECT		1uF	20%	50V						
C1505	1-126-301-11	ELECT		1uF	20%	50V						

PANEL

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>
D619	8-719-987-63	DIODE	1N4148M	IC1503	8-759-635-63	IC	M51943BSL
D620	8-719-987-63	DIODE	1N4148M	IC1505	8-759-917-18	IC	SN74HCU04AN
D1511	8-719-987-63	DIODE	1N4148M	IC1506	8-759-916-46	IC	SN74HC139AN
D1512	8-719-987-63	DIODE	1N4148M	IC1507	8-759-917-18	IC	SN74HCU04AN
D1513	8-719-987-63	DIODE	1N4148M	< COIL >			
D1514	8-719-987-63	DIODE	1N4148M	L601	1-410-521-11	INDUCTOR	100uH
D1522	8-719-987-63	DIODE	1N4148M	L1511	1-410-513-11	INDUCTOR	22uH
D1523	8-719-987-63	DIODE	1N4148M	L1512	1-410-513-11	INDUCTOR	22uH
D1531	8-719-200-82	DIODE	11ES2	L1531	1-410-521-11	INDUCTOR	100uH
D1532	8-719-200-82	DIODE	11ES2	< TRANSISTOR >			
D1533	8-719-987-63	DIODE	1N4148M	Q602	8-729-119-78	TRANSISTOR	2SC403SP-51
D1534	8-719-987-63	DIODE	1N4148M	Q1102	8-729-119-78	TRANSISTOR	2SC403SP-51
D1535	8-719-987-63	DIODE	1N4148M	Q1103	8-729-141-26	TRANSISTOR	2SC3622A-LK
D1541	8-719-987-63	DIODE	1N4148M	Q1152	8-729-119-78	TRANSISTOR	2SC403SP-51
D1551	8-719-200-82	DIODE	11ES2	Q1153	8-729-141-26	TRANSISTOR	2SC3622A-LK
D1552	8-719-200-82	DIODE	11ES2	< RESISTOR >			
D1553	8-719-987-63	DIODE	1N4148M	R603	1-249-429-11	CARBON	10K 5% 1/4W
D1554	8-719-046-46	DIODE	SEL5221S-TH8C (VIDEO)	R604	1-249-425-11	CARBON	4.7K 5% 1/4W F
D1555	8-719-046-46	DIODE	SEL5221S-TH8C (TAPE)	R605	1-249-441-11	CARBON	100K 5% 1/4W
D1556	8-719-046-46	DIODE	SEL5221S-TH8C (CD)	R606	1-249-417-11	CARBON	1K 5% 1/4W F
D1557	8-719-046-46	DIODE	SEL5221S-TH8C (TUNER)	R607	1-249-409-11	CARBON	220 5% 1/4W F
D1558	8-719-046-46	DIODE	SEL5221S-TH8C (PHONO)	R608	1-249-409-11	CARBON	220 5% 1/4W F
D1559	8-719-046-46	DIODE	SEL5221S-TH8C (HALL 1)	R609	1-249-409-11	CARBON	220 5% 1/4W F
D1560	8-719-046-46	DIODE	SEL5221S-TH8C (DANCE 2)	R611	1-249-421-11	CARBON	2.2K 5% 1/4W F
D1561	8-719-046-46	DIODE	SEL5221S-TH8C (VOCAL 3)	R612	1-249-423-11	CARBON	3.3K 5% 1/4W F
D1562	8-719-046-46	DIODE	SEL5221S-TH8C (POPS 4)	R613	1-249-441-11	CARBON	100K 5% 1/4W F
D1563	8-719-046-46	DIODE	SEL5221S-TH8C (BGM 5)	R614	1-249-441-11	CARBON	100K 5% 1/4W
D1564	8-719-046-46	DIODE	SEL5221S-TH8C (EQUALIZER)	R615	1-249-441-11	CARBON	100K 5% 1/4W
D1565	8-719-046-46	DIODE	SEL5221S-TH8C (MEMORY)	R619	1-249-429-11	CARBON	10K 5% 1/4W
D1566	8-719-046-46	DIODE	SEL5221S-TH8C (VOLUME)	R620	1-249-429-11	CARBON	10K 5% 1/4W
D1567	8-719-046-46	DIODE	SEL5221S-TH8C (P. FILE)	R621	1-249-429-11	CARBON	10K 5% 1/4W
D1581	8-719-987-63	DIODE	1N4148M	R622	1-249-429-11	CARBON	10K 5% 1/4W
D1582	8-719-987-63	DIODE	1N4148M	R623	1-249-429-11	CARBON	10K 5% 1/4W
D1583	8-719-987-63	DIODE	1N4148M	R624	1-249-429-11	CARBON	10K 5% 1/4W
D1584	8-719-987-63	DIODE	1N4148M	R625	1-249-429-11	CARBON	10K 5% 1/4W
D1585	8-719-987-63	DIODE	1N4148M	R626	1-249-429-11	CARBON	10K 5% 1/4W
D1586	8-719-987-63	DIODE	1N4148M	R627	1-249-425-11	CARBON	4.7K 5% 1/4W F
D1587	8-719-987-63	DIODE	1N4148M	R628	1-249-425-11	CARBON	4.7K 5% 1/4W F
D1589	8-719-987-63	DIODE	1N4148M	R629	1-249-425-11	CARBON	4.7K 5% 1/4W F
< FLUORESCENT INDICATOR >			R630	1-249-425-11	CARBON	4.7K 5% 1/4W F	
FL601	1-517-265-11	INDICATOR TUBE, FLUORESCENT		R631	1-249-425-11	CARBON	4.7K 5% 1/4W F
FL1501	1-517-266-21	INDICATOR TUBE, FLUORESCENT		R632	1-249-425-11	CARBON	4.7K 5% 1/4W F
< IC >			R633	1-249-425-11	CARBON	4.7K 5% 1/4W F	
IC601	8-759-248-05	IC	TMP47C1270AN-H227				
IC602	8-749-920-83	IC	GP1U52XB				
IC1101	8-759-634-51	IC	M5218AP				
IC1501	8-759-253-53	IC	uPD78042GF056-3B9				
IC1502	8-759-991-11	IC	XR1091DCP				

PANEL

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
R634	1-249-425-11	CARBON	4.7K	5%	1/4W F	R1564	1-249-429-11	CARBON	10K	5%	1/4W
R635	1-249-429-11	CARBON	10K	5%	1/4W	R1565	1-249-429-11	CARBON	10K	5%	1/4W
R1101	1-249-417-11	CARBON	1K	5%	1/4W F	R1571	1-249-429-11	CARBON	10K	5%	1/4W
R1102	1-247-903-00	CARBON	1M	5%	1/4W	R1572	1-249-429-11	CARBON	10K	5%	1/4W
R1103	1-249-429-11	CARBON	10K	5%	1/4W	R1573	1-249-429-11	CARBON	10K	5%	1/4W
R1104	1-249-421-11	CARBON	2.2K	5%	1/4W F	R1581	1-247-883-00	CARBON	150K	5%	1/4W
R1106	1-249-421-11	CARBON	2.2K	5%	1/4W F	R1582	1-249-429-11	CARBON	10K	5%	1/4W
R1107	1-249-434-11	CARBON	27K	5%	1/4W	R1583	1-247-895-00	CARBON	470K	5%	1/4W
R1108	1-247-881-00	CARBON	120K	5%	1/4W	R1591	1-247-807-31	CARBON	100	5%	1/4W
R1109	1-249-427-11	CARBON	6.8K	5%	1/4W F	R1592	1-247-807-31	CARBON	100	5%	1/4W
R1110	1-249-425-11	CARBON	4.7K	5%	1/4W F	R1593	1-247-807-31	CARBON	100	5%	1/4W
R1111	1-249-435-11	CARBON	33K	5%	1/4W	R1594	1-247-807-31	CARBON	100	5%	1/4W
R1112	1-249-426-11	CARBON	5.6K	5%	1/4W	R1595	1-249-413-11	CARBON	470	5%	1/4W F
R1113	1-249-421-11	CARBON	2.2K	5%	1/4W F	R1596	1-249-413-11	CARBON	470	5%	1/4W F
R1114	1-249-412-11	CARBON	390	5%	1/4W F	R1597	1-249-413-11	CARBON	470	5%	1/4W F
R1151	1-249-417-11	CARBON	1K	5%	1/4W F	R1598	1-249-393-11	CARBON	10	5%	1/4W F
R1152	1-247-903-00	CARBON	1M	5%	1/4W			< VARIABLE RESISTOR >			
R1153	1-249-429-11	CARBON	10K	5%	1/4W						
R1154	1-249-421-11	CARBON	2.2K	5%	1/4W F	RV1181	1-223-251-11	RES, VAR, CARBON	100K/100K	(SURROUND)	
R1156	1-249-421-11	CARBON	2.2K	5%	1/4W F	RV1182	1-223-251-11	RES, VAR, CARBON	100K/100K	(DBS LEVEL)	
R1157	1-249-434-11	CARBON	27K	5%	1/4W	RV1183	1-223-251-11	RES, VAR, CARBON	100K/100K	(DBS FREQUENCY (Hz))	
R1158	1-247-881-00	CARBON	120K	5%	1/4W	RV1184	1-223-569-11	RES, VAR, CARBON	100K	(BALANCE)	
R1159	1-249-427-11	CARBON	6.8K	5%	1/4W F			< SWITCH >			
R1160	1-249-425-11	CARBON	4.7K	5%	1/4W F	S601	1-554-303-21	SWITCH, TACTILE	(1)		
R1161	1-249-435-11	CARBON	33K	5%	1/4W	S602	1-554-303-21	SWITCH, TACTILE	(2)		
R1162	1-249-426-11	CARBON	5.6K	5%	1/4W	S603	1-554-303-21	SWITCH, TACTILE	(3)		
R1163	1-249-421-11	CARBON	2.2K	5%	1/4W F	S604	1-554-303-21	SWITCH, TACTILE	(4)		
R1164	1-249-412-11	CARBON	390	5%	1/4W F	S605	1-554-303-21	SWITCH, TACTILE	(5)		
R1181	1-249-431-11	CARBON	15K	5%	1/4W	S606	1-554-303-21	SWITCH, TACTILE	(6)		
R1501	1-249-384-11	CARBON	1.8	5%	1/6W F	S607	1-554-303-21	SWITCH, TACTILE	(7)		
R1502	1-249-384-11	CARBON	1.8	5%	1/6W F	S608	1-554-303-21	SWITCH, TACTILE	(8)		
R1511	1-249-419-11	CARBON	1.5K	5%	1/4W F	S609	1-554-303-21	SWITCH, TACTILE	(9)		
R1512	1-249-393-11	CARBON	10	5%	1/4W F	S610	1-554-303-21	SWITCH, TACTILE	(0)		
R1521	1-249-429-11	CARBON	10K	5%	1/4W	S611	1-554-303-21	SWITCH, TACTILE	(+)		
R1522	1-249-429-11	CARBON	10K	5%	1/4W	S612	1-554-303-21	SWITCH, TACTILE	(-)		
R1523	1-249-425-11	CARBON	4.7K	5%	1/4W F	S613	1-554-303-21	SWITCH, TACTILE	(SHIFT)		
R1531	1-249-417-11	CARBON	1K	5%	1/4W F	S614	1-554-303-21	SWITCH, TACTILE	(BAND)		
R1532	1-249-423-11	CARBON	3.3K	5%	1/4W F	S615	1-554-303-21	SWITCH, TACTILE	(MEMORY)		
R1533	1-249-429-11	CARBON	10K	5%	1/4W	S616	1-554-303-21	SWITCH, TACTILE	(ONCE)		
R1545	1-249-433-11	CARBON	22K	5%	1/4W	S617	1-554-303-21	SWITCH, TACTILE	(DAILY)		
R1546	1-249-433-11	CARBON	22K	5%	1/4W	S618	1-554-303-21	SWITCH, TACTILE	(REC)		
R1551	1-249-429-11	CARBON	10K	5%	1/4W	S619	1-554-303-21	SWITCH, TACTILE	(CLOCK)		
R1552	1-249-425-11	CARBON	4.7K	5%	1/4W F	S620	1-554-303-21	SWITCH, TACTILE	(SLEEP)		
R1554	1-249-415-11	CARBON	680	5%	1/4W F	S621	1-554-303-21	SWITCH, TACTILE	(TIMER)		
R1555	1-249-414-11	CARBON	560	5%	1/4W F	S622	1-554-303-21	SWITCH, TACTILE	(STEREO/MONO)		
R1556	1-249-415-11	CARBON	680	5%	1/4W F	S623	1-554-303-21	SWITCH, TACTILE	(CHARACTER)		
R1557	1-249-415-11	CARBON	680	5%	1/4W F	S624	1-554-303-21	SWITCH, TACTILE	(POWER)		
R1558	1-249-415-11	CARBON	680	5%	1/4W F	S625	1-554-303-21	SWITCH, TACTILE	(DISPLAY)		
R1559	1-249-415-11	CARBON	680	5%	1/4W F						
R1563	1-249-429-11	CARBON	10K	5%	1/4W						

PANEL**PANEL (A)****PANEL (B)**

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>
S626	1-554-303-21	SWITCH, TACTILE (NEXT)	
S1551	1-554-303-21	SWITCH, TACTILE (PHONO)	
S1552	1-554-303-21	SWITCH, TACTILE (CURSOR CONTROL, DOWN)	
S1553	1-554-303-21	SWITCH, TACTILE (TUNER)	
S1554	1-554-303-21	SWITCH, TACTILE (CD)	
S1555	1-554-303-21	SWITCH, TACTILE (TAPE)	
S1556	1-554-303-21	SWITCH, TACTILE (VIDEO)	
S1557	1-554-303-21	SWITCH, TACTILE (CURSOR CONTROL, RIGHT)	
S1558	1-554-303-21	SWITCH, TACTILE (CURSOR CONTROL, LEFT)	
S1559	1-554-303-21	SWITCH, TACTILE (P. FILE)	
S1560	1-554-303-21	SWITCH, TACTILE (HALL 1)	
S1561	1-554-303-21	SWITCH, TACTILE (DANCE 2)	
S1562	1-554-303-21	SWITCH, TACTILE (EQ FLAT)	
S1563	1-554-303-21	SWITCH, TACTILE (EQUALIZER)	
S1565	1-554-303-21	SWITCH, TACTILE (DISPLAY)	
S1566	1-554-303-21	SWITCH, TACTILE (CURSOR CONTROL, UP)	
S1567	1-554-303-21	SWITCH, TACTILE (MEMORY)	
S1568	1-554-303-21	SWITCH, TACTILE (VOCAL 3)	
S1569	1-554-303-21	SWITCH, TACTILE (POPS 4)	
S1570	1-554-303-21	SWITCH, TACTILE (BGM 5)	
< VIBRATOR >			
X601	1-579-564-11	VIBRATOR, CRYSTAL (8.38MHz)	
X1501	1-577-101-11	VIBRATOR, CERAMIC (4.19MHz)	

*	1-650-780-11	PANEL (A) BOARD	

< CONNECTOR >			
* CN951	1-568-828-11	SOCKET, CONNECTOR 9P	
< DIODE >			
D982	8-719-046-42	DIODE SEL5421E-TH8C (▷)	
D983	8-719-046-42	DIODE SEL5421E-TH8C (◁)	
< RESISTOR >			
R981	1-247-811-31	CARBON 150 5% 1/4W	
R982	1-249-409-11	CARBON 220 5% 1/4W F	
R983	1-249-415-11	CARBON 680 5% 1/4W F	
R984	1-249-417-11	CARBON 1K 5% 1/4W F	
R985	1-249-426-11	CARBON 5.6K 5% 1/4W	
R986	1-249-430-11	CARBON 12K 5% 1/4W	
< SWITCH >			
S901	1-554-303-21	SWITCH, TACTILE (■)	
S902	1-554-303-21	SWITCH, TACTILE (▷)	
S903	1-554-303-21	SWITCH, TACTILE (◁)	
S904	1-554-303-21	SWITCH, TACTILE (AMS ▲▼)	
S905	1-554-303-21	SWITCH, TACTILE (AMS ▶◀)	

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>
S906	1-572-269-11	SWITCH, SLIDE (DOLBY NR)	
S907	1-572-268-11	SWITCH, SLIDE (DIRECTION MODE)	

*	1-650-781-11	PANEL (B) BOARD	

< CONNECTOR >			
* CN952	1-568-856-11	SOCKET, CONNECTOR 13P	
< DIODE >			
D991	8-719-046-46	DIODE SEL5221S-TH8C (REC ●)	
D992	8-719-046-38	DIODE SEL5821A-TH8C (PAUSE ▨)	
D994	8-719-046-42	DIODE SEL5421E-TH8C (▷)	
D995	8-719-046-42	DIODE SEL5421E-TH8C (◁)	
D996	8-719-046-46	DIODE SEL5221S-TH8C (CD SYNCHRO)	
D997	8-719-046-46	DIODE SEL5221S-TH8C (NORMAL)	
D998	8-719-046-46	DIODE SEL5221S-TH8C (HIGH)	
< RESISTOR >			
R990	1-247-811-31	CARBON 150 5% 1/4W	
R991	1-249-409-11	CARBON 220 5% 1/4W F	
R992	1-249-411-11	CARBON 330 5% 1/4W	
R993	1-249-413-11	CARBON 470 5% 1/4W F	
R994	1-249-411-11	CARBON 330 5% 1/4W	
R995	1-249-413-11	CARBON 470 5% 1/4W F	
R996	1-249-415-11	CARBON 680 5% 1/4W F	
R997	1-249-417-11	CARBON 1K 5% 1/4W F	
R998	1-249-420-11	CARBON 1.8K 5% 1/4W F	
R999	1-249-424-11	CARBON 3.9K 5% 1/4W F	
< SWITCH >			
S951	1-554-303-21	SWITCH, TACTILE (■)	
S952	1-554-303-21	SWITCH, TACTILE (PAUSE ▨)	
S953	1-554-303-21	SWITCH, TACTILE (▷)	
S954	1-554-303-21	SWITCH, TACTILE (◁)	
S955	1-554-303-21	SWITCH, TACTILE (REC MUTE ●)	
S956	1-554-303-21	SWITCH, TACTILE (AMS ▲▼)	
S957	1-554-303-21	SWITCH, TACTILE (AMS ▶◀)	
S958	1-554-303-21	SWITCH, TACTILE (REC ●)	
S959	1-554-303-21	SWITCH, TACTILE (HIGH)	
S960	1-554-303-21	SWITCH, TACTILE (NORMAL)	
S961	1-554-303-21	SWITCH, TACTILE (CD SYNCHRO)	

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>				<u>Remark</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>				<u>Remark</u>
*	A-4360-815-A	POLAR BOARD, COMPLETE (CIS)				*****			< COIL >				
< CAPACITOR >													
C1701	1-162-294-31	CERAMIC	0.001uF	10%	50V				L1701	1-409-497-11	COIL (FILTER)		
C1702	1-104-294-11	POLYSTYRENE	470PF	5%	50V								
C1703	1-124-902-00	ELECT	0.47uF	20%	50V								
C1704	1-124-902-00	ELECT	0.47uF	20%	50V								
C1705	1-164-098-11	CERAMIC	0.047uF		12V								
C1706	1-124-903-11	ELECT	1uF	20%	50V								
C1707	1-162-288-31	CERAMIC	330PF	10%	50V								
C1708	1-124-903-11	ELECT	1uF	20%	50V								
C1709	1-124-903-11	ELECT	1uF	20%	50V								
C1710	1-130-471-00	MYLAR	0.001uF	5%	50V								
C1711	1-130-471-00	MYLAR	0.001uF	5%	50V								
C1712	1-130-736-11	FILM	0.01uF	5%	50V								
C1713	1-130-736-11	FILM	0.01uF	5%	50V								
C1714	1-124-903-11	ELECT	1uF	20%	50V								
C1715	1-124-903-11	ELECT	1uF	20%	50V								
C1716	1-124-903-11	ELECT	1uF	20%	50V								
C1717	1-162-291-31	CERAMIC	560PF	10%	50V								
C1718	1-162-291-31	CERAMIC	560PF	10%	50V								
C1719	1-124-477-11	ELECT	47uF	20%	25V								
C1720	1-161-379-00	CERAMIC	0.01uF	20%	25V								
C1721	1-161-379-00	CERAMIC	0.01uF	20%	25V								
C1722	1-161-379-00	CERAMIC	0.01uF	20%	25V								
C1723	1-161-379-00	CERAMIC	0.01uF	20%	25V								
C1724	1-161-379-00	CERAMIC	0.01uF	20%	25V								
C1725	1-124-477-11	ELECT	47uF	20%	25V								
C1726	1-124-903-11	ELECT	1uF	20%	50V								
C1727	1-124-903-11	ELECT	1uF	20%	50V								
C1728	1-124-034-51	ELECT	33uF	20%	16V								
C1729	1-124-907-11	ELECT	10uF	20%	50V								
< CONNECTOR >													
* CN1701 1-568-832-11 SOCKET, CONNECTOR 13P													
< DIODE >													
D1701	8-719-987-63	DIODE	IN4148M										
D1702	8-719-987-63	DIODE	IN4148M										
D1703	8-719-987-63	DIODE	IN4148M										
D1704	8-719-987-63	DIODE	IN4148M										
D1705	8-719-987-63	DIODE	IN4148M										
< IC >													
IC1701	8-759-063-04	IC	IR3R42										
IC1702	8-759-634-51	IC	M5218AP										
IC1703	8-759-140-53	IC	MC14053BCP										

< COIL >													
L1701 1-409-497-11 COIL (FILTER)													
< TRANSISTOR >													
Q1701	8-729-900-61	TRANSISTOR	DTA114ES										
Q1702	8-729-900-80	TRANSISTOR	DTC114ES										
Q1703	8-729-900-80	TRANSISTOR	DTC114ES										
Q1704	8-729-900-80	TRANSISTOR	DTC114ES										
Q1705	8-729-900-61	TRANSISTOR	DTA114ES										
< RESISTOR >													
R1701	1-249-432-11	CARBON	18K	5%	1/4W								
R1702	1-249-435-11	CARBON	33K	5%	1/4W								
R1703	1-249-427-11	CARBON	6.8K	5%	1/4W F								
R1704	1-247-858-11	CARBON	13K	5%	1/4W								
R1705	1-249-417-11	CARBON	1K	5%	1/4W F								
R1706	1-249-417-11	CARBON	100K	5%	1/4W								
R1707	1-249-441-11	CARBON	82K	5%	1/4W								
R1708	1-249-440-11	CARBON	68K	5%	1/4W								
R1709	1-249-439-11	CARBON	68K	5%	1/4W								
R1710	1-249-439-11	CARBON	100K	5%	1/4W								
R1711	1-249-439-11	CARBON	68K	5%	1/4W								
R1712	1-247-878-00	CARBON	91K	5%	1/4W								
R1713	1-247-878-00	CARBON	91K	5%	1/4W								
R1714	1-249-441-11	CARBON	100K	5%	1/4W								
R1715	1-249-441-11	CARBON	100K	5%	1/4W								
R1716	1-249-441-11	CARBON	100K	5%	1/4W								
R1717	1-249-441-11	CARBON	100K	5%	1/4W								
R1718	1-249-429-11	CARBON	10K	5%	1/4W								
R1719	1-249-429-11	CARBON	10K	5%	1/4W								
R1720	1-249-429-11	CARBON	10K	5%	1/4W								
R1721	1-249-434-11	CARBON	27K	5%	1/4W								
R1722	1-249-441-11	CARBON	100K	5%	1/4W								
< VARIABLE RESISTOR >													
RV1701 1-238-601-11 RES, ADJ, CARBON 22K													
RV1702 1-238-599-11 RES, ADJ, CARBON 4.7K													
< SWITCH >													
S1701 1-571-303-11 SWITCH, SLIDE (POLAR-PILOT TONE)													
< PIN CONNECTOR >													
* TP1701 1-560-061-00 PIN, CONNECTOR 3P													
* TP1702 1-560-061-00 PIN, CONNECTOR 3P													

POWER

POWER AMP

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>
*	A-4369-159-A	POWER BOARD, COMPLETE (UK)	*****			< RESISTOR >	
*	A-4369-172-A	POWER BOARD, COMPLETE (AEP, IT, G)	*****	R1601	1-249-417-11	CARBON	1K 5% 1/4W F
*	A-4371-009-A	POWER BOARD, COMPLETE (EE, CIS)	*****	R1602	1-249-429-11	CARBON	10K 5% 1/4W
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S		▲R1603	1-212-849-00	FUSIBLE	4.7 5% 1/4W F
				R1611	1-249-425-11	CARBON	4.7K 5% 1/4W F
				R1612	1-249-421-11	CARBON	2.2K 5% 1/4W F
				▲R1613	1-212-934-00	FUSIBLE	1 5% 1/2W F
				R1621	1-249-423-11	CARBON	3.3K 5% 1/4W F
				R1622	1-249-433-11	CARBON	22K 5% 1/4W
				R1623	1-249-400-11	CARBON	39 5% 1/4W F (AEP, IT, G)
				R1624	1-249-400-11	CARBON	39 5% 1/4W F (AEP, IT, G)
						< RELAY >	
				RY1	1-515-738-11	RELAY, POWER	
						< TRANSFORMER >	
				▲T2	1-423-929-11	TRANSFORMER, POWER (SUB) (AEP, IT, G)	
				▲T2	1-423-930-11	TRANSFORMER, POWER (SUB) (UK, EE, CIS)	

				*	A-4369-160-A	POWER AMP BOARD, COMPLETE (UK)	*****
				*	A-4369-173-A	POWER AMP BOARD, COMPLETE (AEP, EE, CIS)	*****
				*	A-4369-305-A	POWER AMP BOARD, COMPLETE (IT, G)	*****
						< CAPACITOR >	
* CN1	1-564-321-00	PIN, CONNECTOR 2P		C1201	1-126-163-11	ELECT	4.7uF 20% 50V
				C1202	1-164-075-11	CERAMIC	150PF 10% 50V
				C1203	1-164-077-11	CERAMIC	220PF 10% 50V
				C1204	1-124-126-00	ELECT	47uF 20% 10V
				C1205	1-124-910-11	ELECT	47uF 20% 50V
				C1206	1-124-122-11	ELECT	100uF 20% 50V
				C1208	1-124-916-11	ELECT	22uF 20% 63V
				C1210	1-137-375-11	FILM	0.068uF 5% 50V
				C1211	1-137-375-11	FILM	0.068uF 5% 50V
				C1220	1-126-176-11	ELECT	220uF 20% 10V
				C1251	1-126-163-11	ELECT	4.7uF 20% 50V
				C1252	1-164-075-11	CERAMIC	150PF 10% 50V
				C1253	1-164-077-11	CERAMIC	220PF 10% 50V
				C1254	1-124-126-00	ELECT	47uF 20% 10V
				C1255	1-124-910-11	ELECT	47uF 20% 50V
				C1256	1-124-122-11	ELECT	100uF 20% 50V
				C1260	1-137-375-11	FILM	0.068uF 5% 50V
				C1261	1-137-375-11	FILM	0.068uF 5% 50V

The components identified by mark ▲ or dotted line with mark ▲ are critical for safety.
Replace only with part number specified.

POWER AMP VR

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark				
< CONNECTOR >											
* CN1203	1-564-518-11	PLUG, CONNECTOR 3P		△R1259	1-212-881-11	FUSIBLE	100 5% 1/4W F				
CN1204	1-764-331-11	PIN, CONNECTOR (PCB) (V TYPE) 8P		△R1260	1-217-151-00	RES, METAL PLATE	0.22 2W				
< IC >											
IC1201	8-749-900-24	IC STK-4162MK2 (AEP, IT, G, EE, CIS)		R1261	1-249-417-11	CARBON	1K 5% 1/4W F				
IC1201	8-749-920-09	IC STK-4152MK2K (UK)		R1262	1-249-431-11	CARBON	15K 5% 1/4W				

< DIODE >											
D1201	8-719-987-63	DIODE 1N4148M		R1263	1-249-441-11	CARBON	100K 5% 1/4W				
D1202	8-719-987-63	DIODE 1N4148M		R1268	1-249-397-11	CARBON	22 5% 1/4W F				
D1251	8-719-987-63	DIODE 1N4148M		R1269	1-249-397-11	CARBON	22 5% 1/4W F				

< TRANSISTOR >											
Q1201	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA		* 1-651-167-11	VR BOARD	*****					
Q1251	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA		< CAPACITOR >							
< RESISTOR >											
R1201	1-249-417-11	CARBON 1K 5% 1/4W F		C1185	1-164-159-11	CERAMIC	0.1uF 50V				
R1202	1-249-438-11	CARBON 56K 5% 1/4W		C1507	1-161-494-00	CERAMIC	0.022uF 25V				
R1203	1-249-414-11	CARBON 560 5% 1/4W F		C1508	1-124-443-00	ELECT	100uF 20% 10V				
R1204	1-249-438-11	CARBON 56K 5% 1/4W		< CONNECTOR >							
R1205	1-249-425-11	CARBON 4.7K 5% 1/4W F		* CN1502 1-568-934-11 PIN, CONNECTOR 7P							
< IC >											
IC1504	8-759-820-62	IC LB1639		< VARIABLE RESISTOR >							
RV1185 1-241-350-11 RES, VAR, CARBON 100K/100K (VOLUME)											

MISCELLANEOUS											

6 1-765-176-11 WIRE (FLAT TYPE) (26 CORE)											
* 7 1-696-674-11 WIRE (FLAT TYPE) (23 CORE)											
8 1-690-824-11 WIRE (FLAT TYPE) (25 CORE)											
9 1-575-906-11 WIRE, FLAT TYPE (15 CORE) (AEP, G, IT)											
9 1-590-459-11 WIRE, FLAT TYPE (11 CORE) (UK, EE, CIS)											
△16 1-575-651-11 CORD, POWER (AEP, G, IT, EE, CIS)											
△17 1-696-570-21 CORD, POWER (UK)											
19 1-690-590-31 WIRE (FLAT TYPE) (13 CORE) (CIS)											
81 1-751-025-11 WIRE (FLAT TYPE) (9 CORE)											
83 1-751-210-11 WIRE (FLAT TYPE) (13 CORE)											
117 1-590-485-11 WIRE, FLAT TYPE (7 CORE)											
* 261 1-452-538-11 MAGNET											
△306 8-848-144-11 OPTICAL PICK-UP BLOCK (KSS-240A)											
307 1-575-001-11 WIRE, FLAT TYPE (12 CORE)											
△F101 1-532-286-00 FUSE (T2.5A)											
△F102 1-532-286-00 FUSE (T2.5A)											
△F103 1-532-299-00 FUSE (T5.0A)											
△F104 1-532-299-00 FUSE (T5.0A)											
HP101 A-2003-757-A BASE ASSY, HEAD											
HRPE101A-2003-930-A BASE ASSY, HEAD											

The components identified by mark △ or dotted line with mark △ are critical for safety.
Replace only with part number specified.

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>
IC81A	8-749-924-10	PHOTO REFECTOR NJ5165-B (DECK A)				*****	
IC81B	8-749-924-10	PHOTO REFECTOR NJ5165-B (DECK B)				HARDWARE LIST	
M101A	X-3363-501-1	MOTOR ASSY (REEL) (DECK A)				*****	
M101B	X-3363-501-1	MOTOR ASSY (REEL) (DECK B)				*****	
M102A	X-3365-377-1	MOTOR ASSY (CAPSTAN) (DECK A)		#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
M102B	X-3365-377-1	MOTOR ASSY (CAPSTAN) (DECK B)		#2	7-682-548-04	SCREW +BVTT 3X8 (S)	
M151	A-4604-363-A	MOTOR (L) ASSY (LOADING)		#3	7-682-560-04	SCREW +BVTT 4X6 (S)	
M301	X-4917-523-4	MOTOR ASSY (SPINDLE)		#4	7-685-650-79	SCREW +BVTP 3X16 TYPE2 IT-3	
M302	X-4917-504-1	MOTOR ASSY (SLED)		#5	7-621-849-00	SCREW, TAPPING	
S101	1-572-085-11	SWITCH, LEAF (LIMIT)		#6	7-627-556-08	SCREW +P 2.6X2.8	
▲T1	1-423-927-11	TRANSFORMER, POWER (AEP, G, IT, EE, CIS)	▲	#7	7-621-775-00	SCREW +B 2.6X3	
▲T1	1-426-782-11	TRANSFORMER, POWER (UK)	▲	#8	7-621-775-10	SCREW +B 2.6X4	
▲T2	1-423-929-11	TRANSFORMER, POWER (SUB) (AEP, G, IT)	▲	#9	7-621-255-15	SCREW +P 2X3	

			ACCESSORIES & PACKING MATERIALS				

	1-467-547-11	COMMANDER, STANDARD (RM-S421)					
	1-501-374-11	ANTENNA, LOOP (AEP, IT, EE, CIS)					
	1-501-536-11	ANTENNA (AEP, IT, EE, CIS)					
	2-181-754-21	COVER, BATTERY (For RM-S421)					
	3-758-162-11	MANUAL, INSTRUCTION (ENGLISH) (UK)					
	3-758-162-31	MANUAL, INSTRUCTION (GERMAN) (AEP)					
	3-758-162-41	MANUAL, INSTRUCTION (ENGLISH, FRENCH, SPANISH, PORTUGUESE) (AEP)					
	3-758-162-51	MANUAL, INSTRUCTION (GERMAN, DUTCH, SWEDISH, ITALIAN) (AEP, IT)					
	3-758-162-61	MANUAL, INSTRUCTION (DANISH, FINNISH) (AEP)					
	3-758-162-71	MANUAL, INSTRUCTION (ENGLISH, RUSSIAN, POLISH) (EE, CIS)					
	3-758-162-81	MANUAL, INSTRUCTION (CZECHOSLOVAK, HUNGARIAN) (EE)					
*	4-963-204-11	CUSHION					
*	4-963-781-01	INDIVIDUAL CARTON (AEP, IT)					
*	4-963-782-01	INDIVIDUAL CARTON (EE, CIS)					

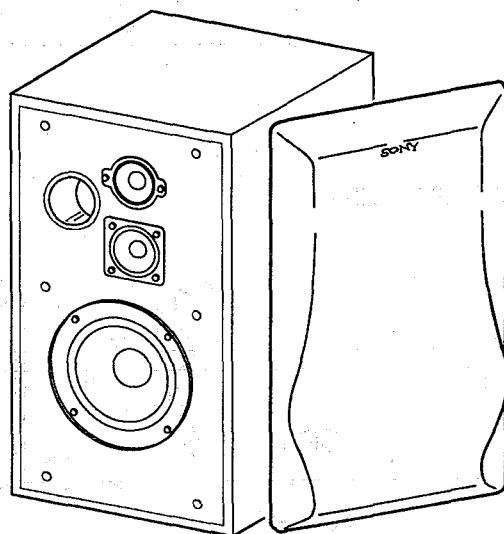
The components identified by mark ▲ or dotted line with mark ▲ are critical for safety.
Replace only with part number specified.

Sony Corporation
Audio Group

SS-A490

SERVICE MANUAL

AEP Model



SPECIFICATIONS

System:	3-way-speaker system
Speaker units:	Woofer: 16 cm, cone type Midrange: 6,5 cm, cone type Tweeter: 5 cm, cone type
Enclosure type:	Bass reflex
Rated impedance:	6 Ω
Power handling capacity:	Maximum input power 100 W
Sensitivity:	88 dB (1 W, 1 m)
Effective frequency range:	50 – 20.000 Hz
Dimensions:	Approx. 260 x 475 x 220 mm (w/h/d)
Weight:	Approx. 5,8 kg per speaker, net Approx. 12,5 kg in shipping carton

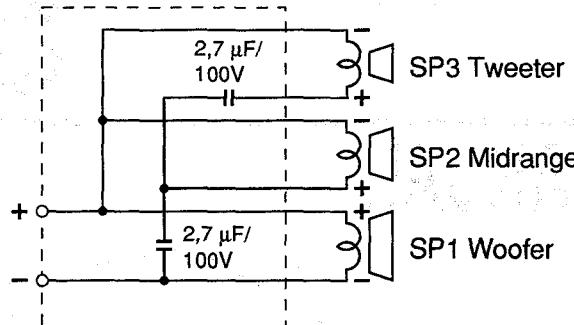
Design and specifications subject to change without notice.



MICROFILM

SPEAKER SYSTEM
SONY®

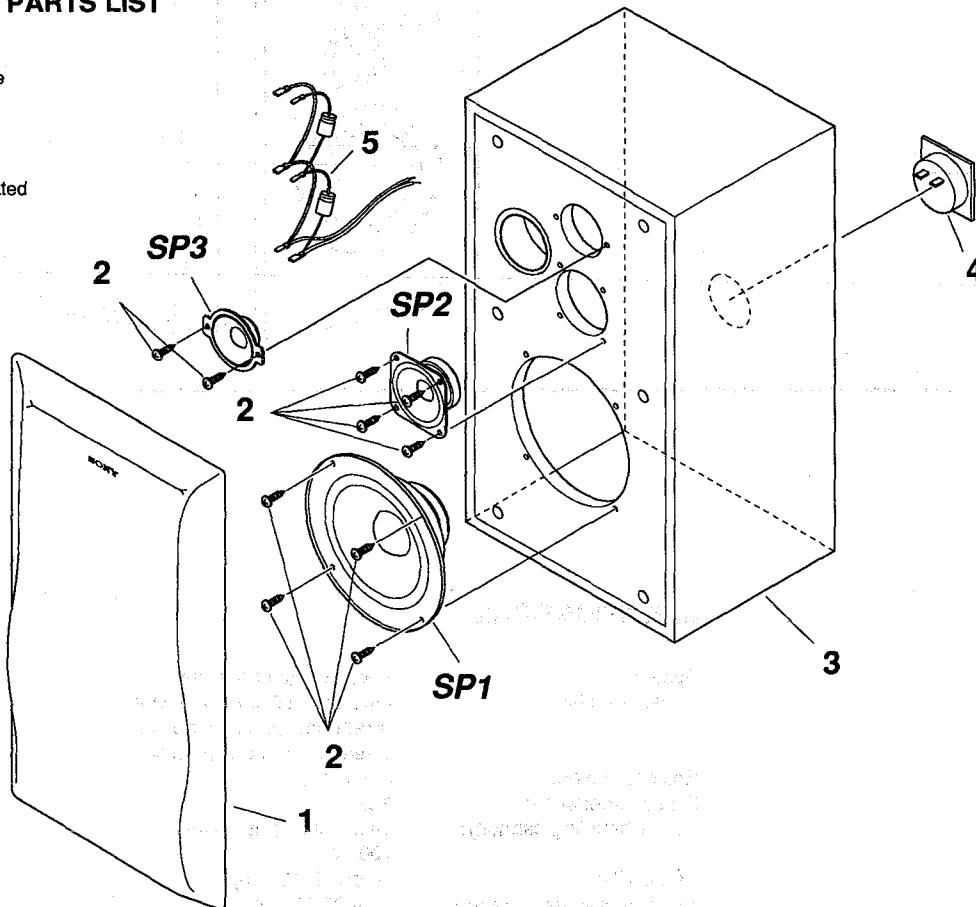
1. SCHEMATIC DIAGRAM



2. EXPLODED VIEW AND PARTS LIST

NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.



Ref. No.	Part No.	Description	Remark
1	X-4944-495-1	GRILLE FRAME ASSY	
2	4-960-363-01	TAPPING SCREW +B 3,5 X 16	
3	X-4944-494-1	SPEAKER CABINET ASSY	
4	1-537-529-11	TERMINAL BOARD	
5	1-751-750-11	INTERCONNECTING CORD WITH CAPACITORS	
SP1	1-504-377-11	SPEAKER (16 cm CONE)	
SP2	1-504-375-11	SPEAKER (6,5 cm CONE)	
SP3	1-504-378-11	SPEAKER (5 cm CONE)	

Ref. No.	Part No.	Description	Remark
<ACCESSORIES & PACKING MATERIALS>			
*	4-964-264-01	CARTON	
*	4-964-265-01	CUSHION (T)	
*	4-956-768-01	CUSHION	
*	4-956-769-01	POLYETHYLENE BAG	
3-758-017-01		INSTRUCTION MANUAL	
1-751-495-11		SPEAKER CORD	

PS-LX56/LX56P

SERVICE MANUAL

PS-LX56/LX56P are the turntable section in LBT-A190/A195/A290/A290K/A295/A390/A390K/A395/A490/A490K/A495/D150/D250/D550/G1000/G2000.

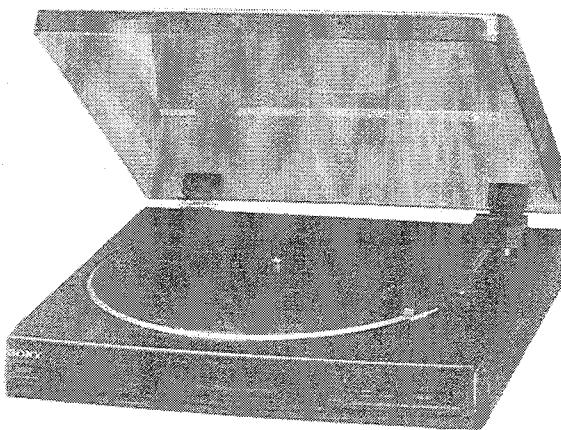


PHOTO : PS-LX56

*US Model
Canadian Model*

*PX Model
Tourist Model*

PS-LX56

*AEP Model
E Model*

Australian Model

PS-LX56/LX56P

UK Model

PS-LX56P

SPECIFICATIONS

Turtable
Platter
Motor
Drive system
Speed
Wow and flutter
Signal-to-noise ratio
Automatic system

(PS-LX56)
30cm (12 in.)
DC servo motor
Belt drive
33 1/3 rpm/45 rpm switchable
0.2% (WRMS)
60 dB (DIN-B)
Return, reject

Tonearm
Type
Pivot-to-stylus length

Dynamically balanced
203 mm (8 in.)
235 mm (9 1/4 in.)

Cartridge
Type
Frequency response

Moving magnet type
20 Hz-20kHz
CN-234

General
Dimensions
Weight
Power requirement

355 × 94 × 345 mm(w/h/d) (14 × 3 1/2 × 13 5/8 inches)
Approx. 2.5 kg (5 lb 8 oz)
US and Canadian model : 120V AC, 60Hz
European model : 220-230V AC, 50/60Hz
Australian model : 240V AC, 50Hz
Model for other countries : 110-120V/220-240V adjustable with the voltage selector AC, 50/60Hz

Power consumption
Accessory supplied
Optional accessories

2 W
45-rpm adaptor (1)
Replacement stylus CN-234
Stat spray XP-C10

Cleaner XP-C1, XP-C2

Turtable
Platter
Tone arm type
Cartridge type
Stylus
Mass
Dimensions

(PS-LX56P)
30 cm
Dynamically balanced
Moving magnet type
Sony CN-234 (0.6 mil diamond)
Approx. 2.3 kg (5 lb 1 oz)
Approx. 355 × 95 × 345 mm (14 × 3 3/4 × 13 5/8 inches) (w/h/d, including projections)

Design and specifications subject to change without notice.

Note
This appliance conforms with EEC Directive 87/308/EEC regarding interference suppression.

STEREO TURNTABLE SYSTEM
SONY®

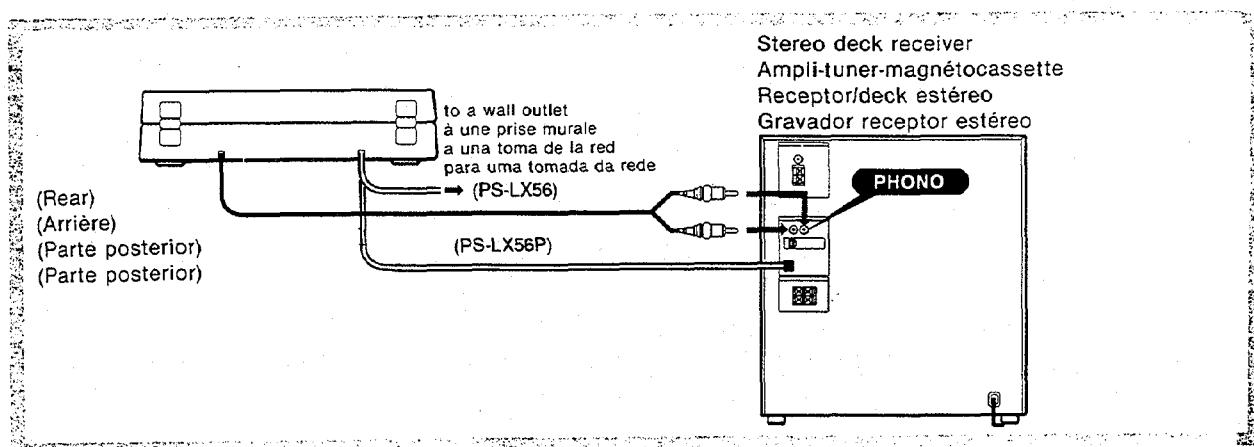


MICROFILM

Connections

Note

Connect the red plug to the right-channel jack (R), and the white plug to the left-channel jack (L).

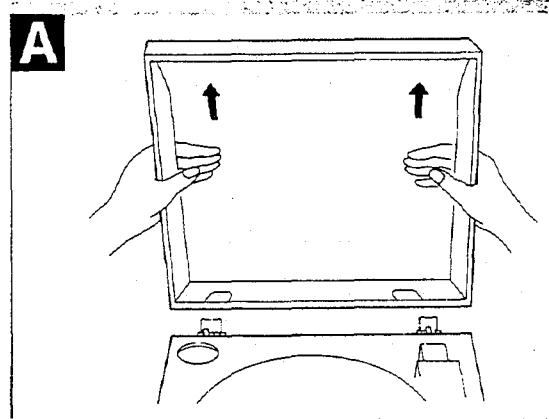


Notes on installation

- Place the turntable on a level surface.
- Avoid placing the unit near electrical appliances (such as a television, hair dryer, or fluorescent lamp) which may cause hum or noise.
- Place the turntable where it will not be subject to any vibration, such as from speakers, slamming of doors, etc.
- Keep the unit away from direct sunlight, extremes of temperature, and excessive dust and moisture.

Stereo deck receiver
Ampli-tuner-magnétocassette
Receptor/deck estéreo
Gravador receptor estéreo

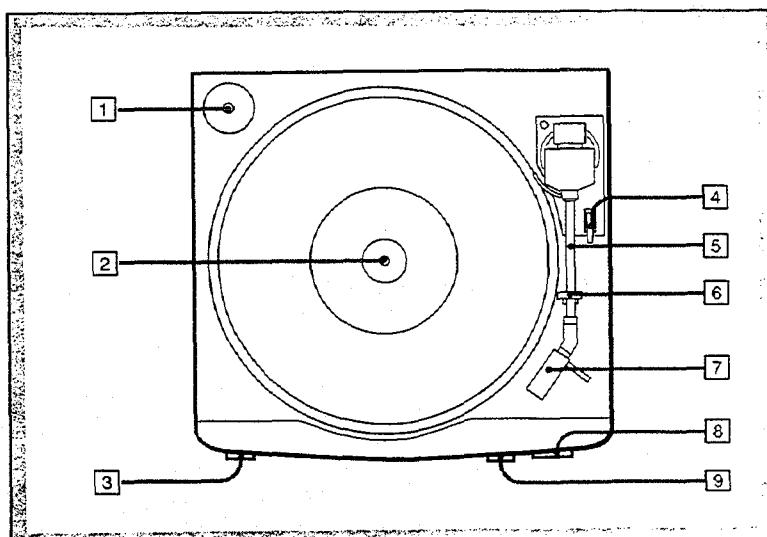
Nota
Conecte la clavija roja a la toma del canal derecho (R), y la blanca a la del canal izquierdo (L).



To remove the dust cover A

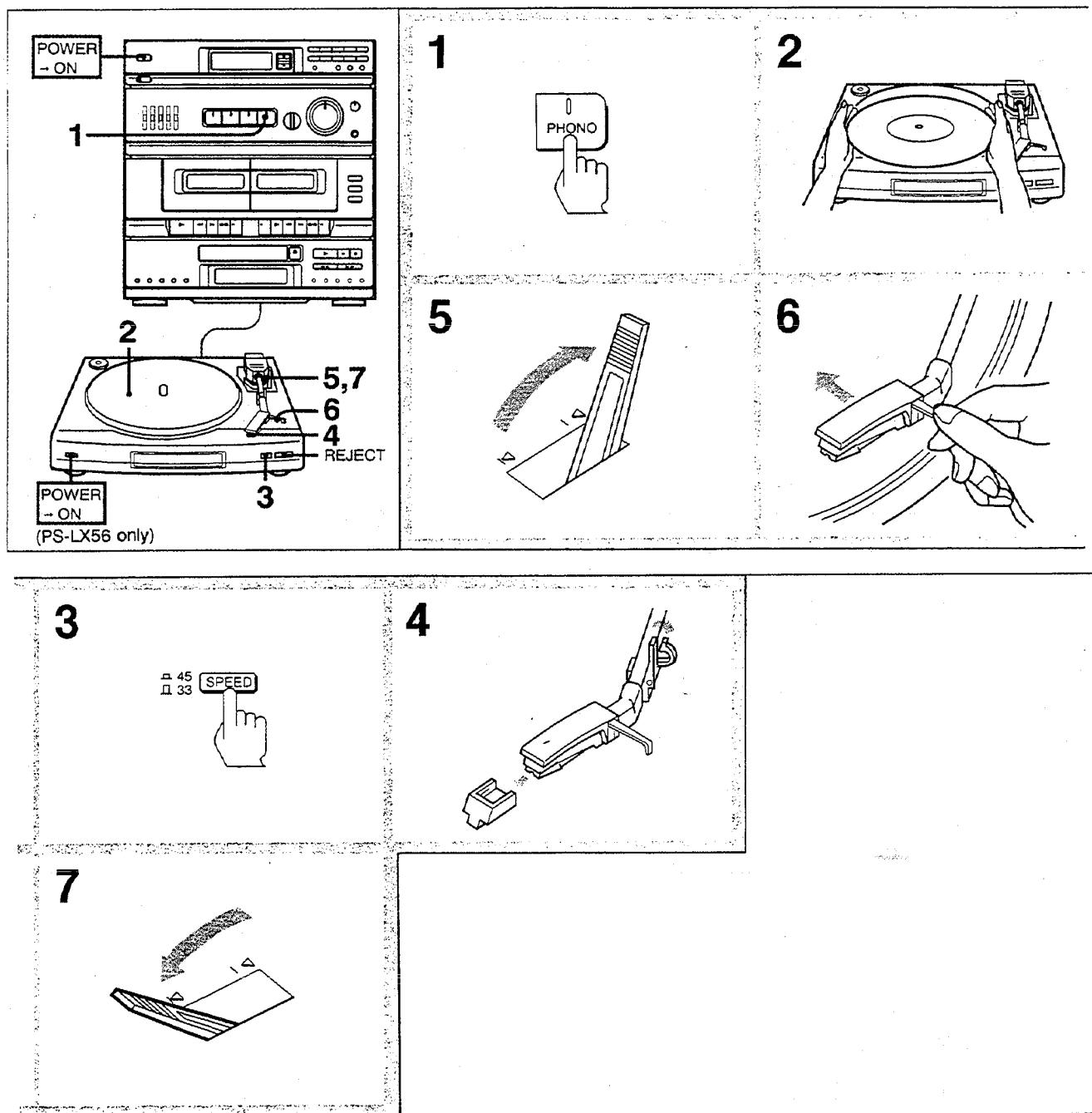
Open the cover fully and pull it up.

Location of Controls



- 1 45-rpm adaptor
- 2 Centre spindle
- 3 POWER switch (PS-LX56)
- 4 Cueing lever
- 5 Tonearm
- 6 Armrest
- 7 Cartridge
- 8 REJECT button
- 9 Speed selector

Playing Records



When the record is played to the end, the tonearm returns to the armrest and the turntable stops.

To stop during play, press REJECT.

To play a different part of the record

Lift the tonearm by setting the cueing level to ▲, move the tonearm by hand to the desired point, then set the cueing lever to ▼.

To play a 17-cm record

Use the supplied adaptor

If the tonearm moves outward when you move it close to the centre

Do not resist this movement, as it may damage the automatic return mechanism.

If the tonearm does not return to its armrest
Press REJECT.

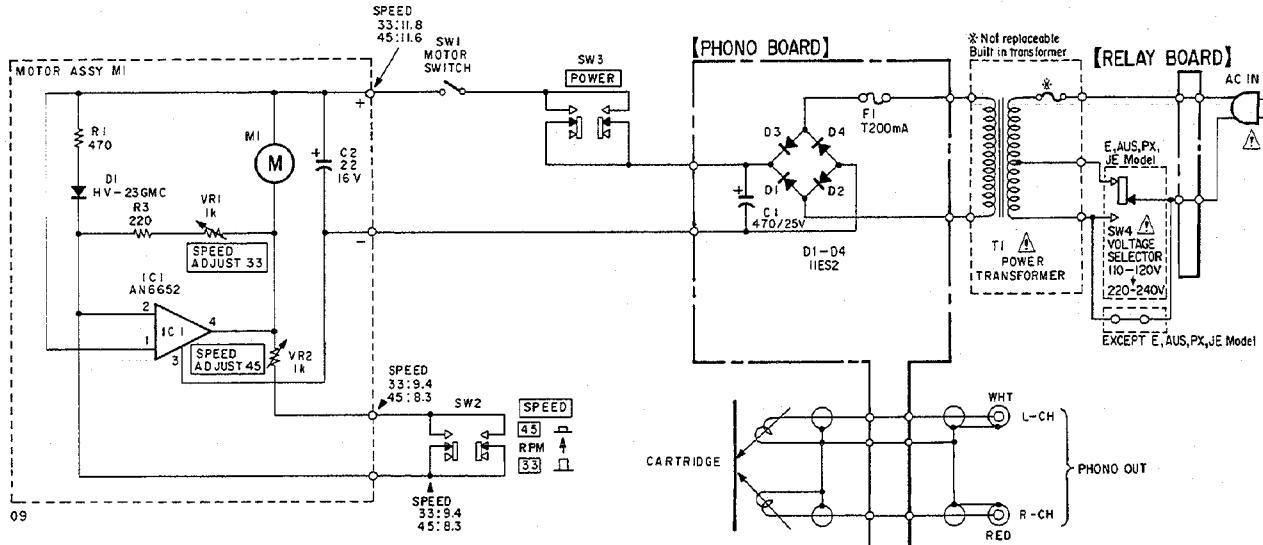
SCHEMATIC DIAGRAMS

1 2 3 4 5 6 7

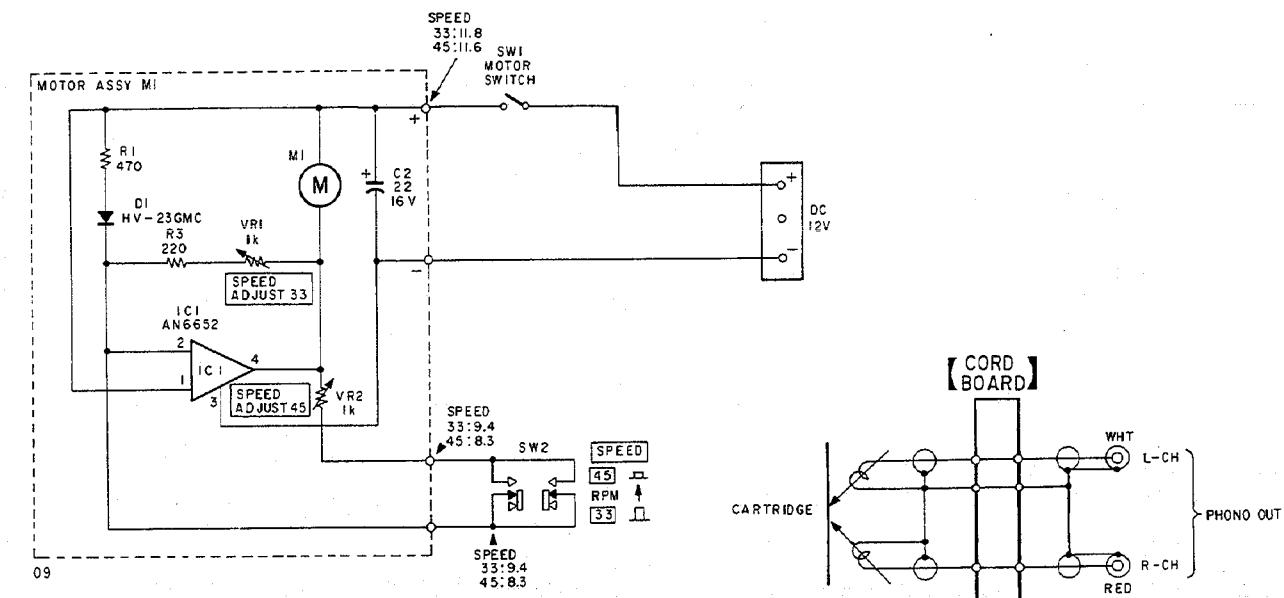
(PS-LX56)

• Switches :

Ref. No.	Switch	Position
SW1	MOTOR	OFF
SW2	SPEED	33
SW3	POWER	OFF



(PS-LX56P)



Note:

- All capacitors are in μF unless otherwise noted. $\text{pF} \text{ or } \mu\text{F}$ 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.

AUS : Australian model
JE : Tourist model

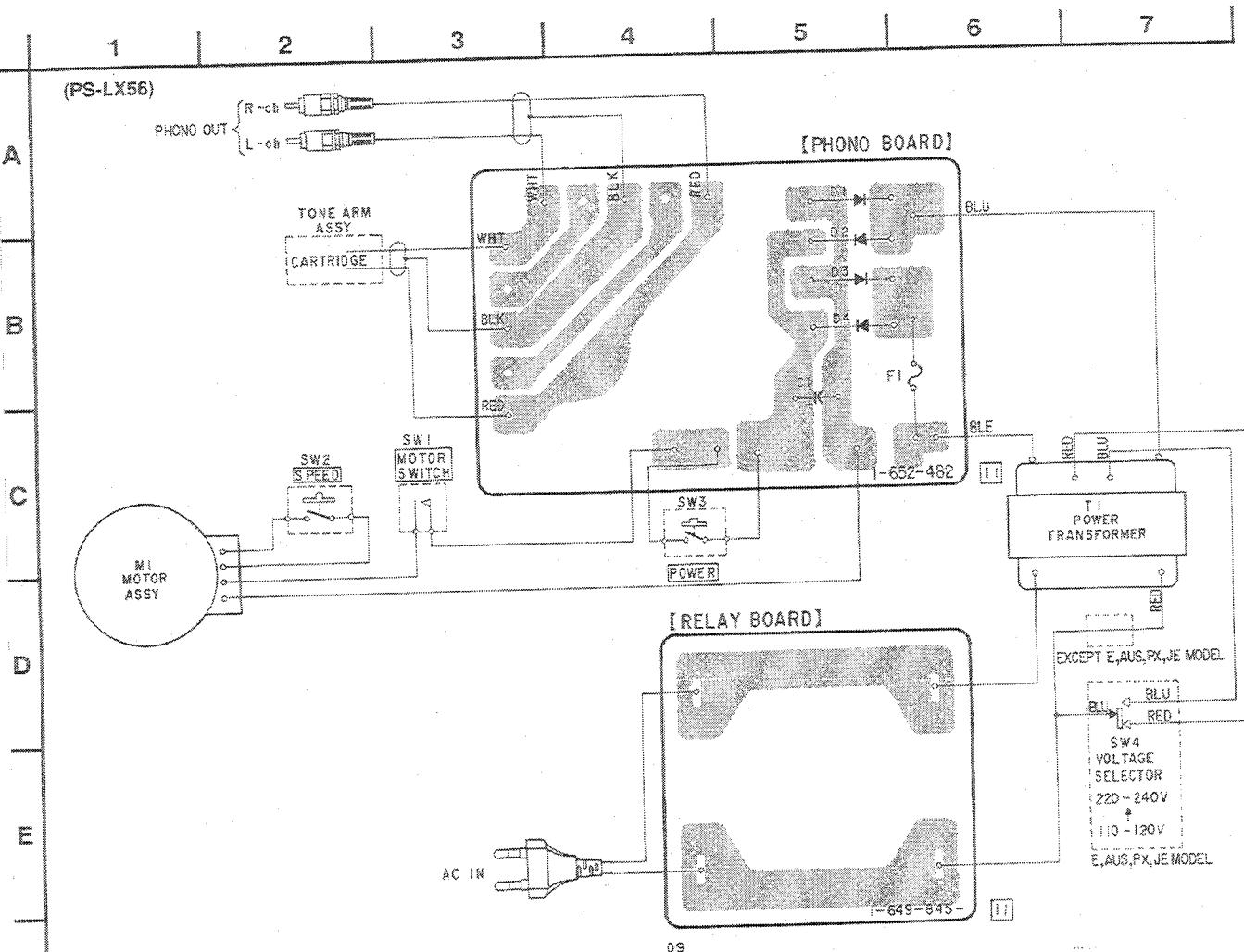
• Switches :

Ref. No.	Switch	Position
SW1	MOTOR	OFF
SW2	SPEED	33
SW3	POWER	OFF
SW4	VOLTAGE SELECTOR	240V

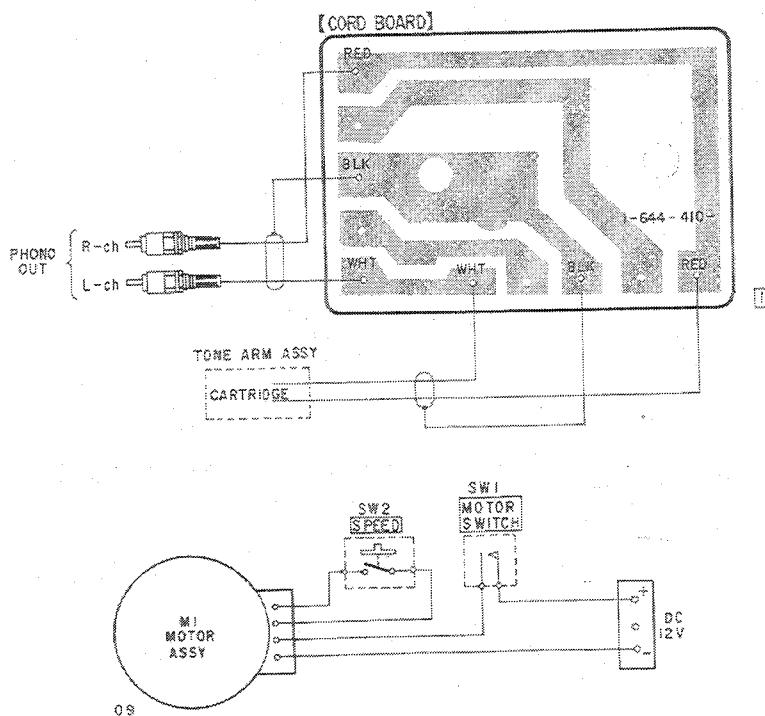
The components identified by mark Δ or dotted line with mark Δ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque Δ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

WIRING DIAGRAMS



(PS-LX56P)



Note:
— : parts extracted from the component side.

AUS : Australian model
JE : Tourist model

EXPLODED VIEW

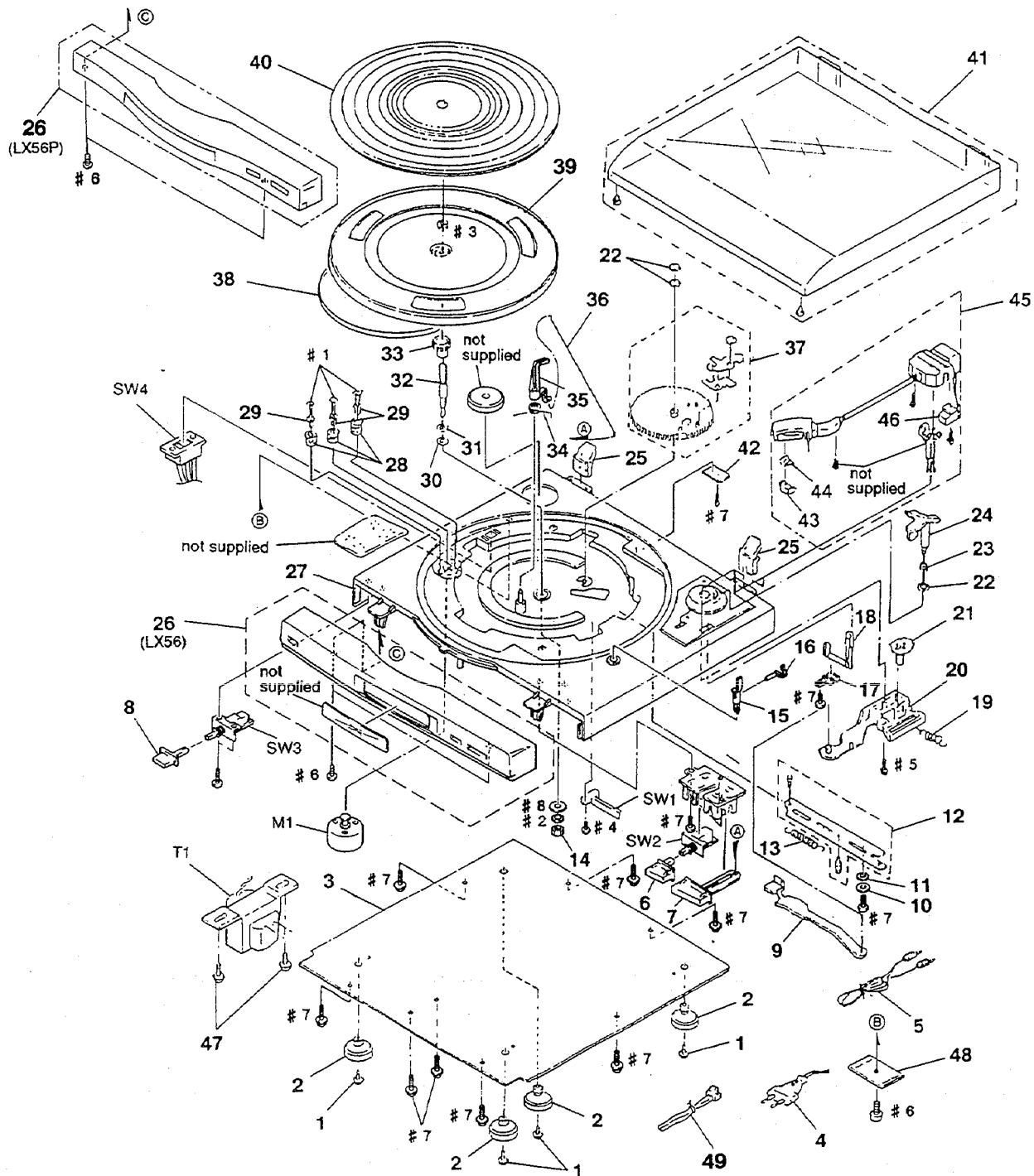
NOTE:

- -XX, -X mean standardized parts, so they may have some difference from the original one.
 - Items marked “ * ” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
 - The mechanical parts with no reference number in the exploded views are not supplied.

- AUS : Australian model
 - CND : Canadian model
 - EE : East European model
 - IT : Italian model
 - MX : Mexican model
 - EA : Saudi Arabia model
 - SP : Singapore model
 - MY : Malaysia model
 - JE : Tourist

The components identified by mark  or dotted line with mark  are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque  sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.



<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>
1	4-950-497-01	FOOT SEAT		M1	A-4604-945-A	MOTOR ASSY	
2	4-950-490-01	PLASTIC STAND		SW1	1-570-666-11	SWITCH (LEAF)	
* 3	4-961-804-01	BUTTON BOARD		SW2	1-571-089-11	SWITCH, PUSH (SPEED) (1 KEY)	
▲ 4	1-575-651-61	CORD, AC (LX56: AEP, EA, EE, IT, MX, MY, CIS, SP)		SW3	1-692-211-11	SWITCH, PUSH (POWER) (1 KEY) (LX56)	
▲ 4	1-575-975-11	CORD, AC (LX56: CND, US)		▲ SW4	1-692-835-11	VOLTAGE SELECTOR (LX-56: AUS, E, MX, MY, SP)	
▲ 4	1-590-074-11	CORD, AC (LX56: E)		▲ T1	1-450-987-11	TRANSFORMER, POWER (LX56: AEP, EE, IT, CIS)	
▲ 4	1-690-608-11	CORD, AC (LX56: AUS)		▲ T1	1-450-987-21	TRANSFORMER, POWER (LX56: AUS, E, PX, EA, JE, MX, SP)	
5	1-555-116-11	CORD, PHONO		▲ T1	1-450-987-31	TRANSFORMER, POWER (LX56: MY)	
6	4-964-177-01	KNOB SPEED		▲ T1	1-450-987-41	TRANSFORMER, POWER (LX56: U, CA)	
7	4-964-178-01	KNOB REJECT					
8	4-964-184-01	KNOB POWER (LX56)					
9	4-947-487-01	RETURN LINK					
10	4-890-173-00	WASHER					
11	3-659-350-00	WASHER					
12	A-4604-947-A	RETURN ASSY, LEVER					
13	4-947-485-01	SPRING (22)					
14	4-947-510-01	NUT					
15	4-947-491-01	ARM REST					
16	A-4660-499-A	ARM CLIP ASSY					
17	4-947-477-01	CUEING (BASE)					
18	4-947-468-01	LEVER, CUEING					
19	4-963-537-01	SPRING					
20	4-963-536-01	LINK RETURN					
21	4-963-535-01	ADJUST CAM					
22	4-947-514-01	4MM CS RING					
23	4-947-467-01	SPRING (6)					
24	4-947-466-01	TONE ARM ELEVATOR					
25	A-4660-498-A	HINGE ASSY					
26	A-4660-577-A	FRONT PANEL (G) ASSY (LX56: GRAY) (US)					
26	A-4660-578-A	FRONT PANEL (G) ASSY (LX56: BLACK)					
26	A-4660-976-A	FRONT PANEL (G) ASSY (LX56P)					
* 27	4-950-487-01	MAIN CABINET (B)					
28	4-947-505-01	CUSHION MOTOR					
29	4-947-504-01	COLLAR					
30	3-451-162-00	WASHER (56)					
31	3-701-445-21	WASHER					
32	4-947-498-01	STELL BALL					
33	4-947-497-01	GEAR					
34	4-947-496-01	SPRING (34)					
35	4-947-495-01	WIPER REJECT					
36	4-948-101-01	SPRING (38)					
37	A-4604-916-A	GEAR ASSY, SPUR					
38	4-947-503-01	BELT					
39	4-947-494-01	TURNTABLE PLATTER					
40	4-947-539-01	RUBBER MAT					
41	A-4604-946-A	DUST COVER ASSY					
* 42	1-652-482-11	PHONO BOARD (LX56)					
* 42	1-644-410-11	CORD BOARD (LX56P)					
43	4-948-095-01	COVER, CARTRIDGE					
44	4-951-290-01	STYLUS (CN-234)					
45	A-4604-940-A	ARM ASSY, TONE					
46	4-947-464-01	COUNTER WEIGHT					
47	4-952-961-01	SCREW (LX56)					
* 48	1-649-845-11	RELAY BOARD (LX56)					
49	1-557-109-21	CORD, DC (LX56P)					

CORD PHONO RELAY

ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
All resistors are in ohms
METAL: Metal-film resistor
METAL OXIDE: Metal Oxide-film resistor
F: nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Hardware (# mark) list is given in the last of this parts list.

• SEMICONDUCTORS
In each case, u: μ , for example:
uA...: μ A..., uPA...: μ PA...,
uPB...: μ PB..., uPC...: μ PC...,
uPD...: μ PD...

• CAPACITORS

uF: μ F

• COILS

uH: μ H

- AUS : Australian model
- CND : Canadian model
- EE : East European model
- IT : Italian model
- MX : Mexican model
- EA : Saudi Arabia model
- SP : Singapore model
- MY : Malaysia model
- JE : Tourist

The components identified by mark \triangle or dotted line with mark \triangle are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque \triangle sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	1-644-410-11	CORD BOARD (LX56P)	*****			ACCESSORIES & PACKING MATERIALS	

*	1-652-482-11	PHONO BOARD (LX56)	*****			4-758-045-11 MANUAL INSTRUCTION (English, French, Spanish, Portuguese) (LX56 AEP, CND)	

		< CAPACITOR >				4-758-045-21 MANUAL INSTRUCTION (English) (LX56 US)	
C1	1-126-012-11	ELECT	470uF	16V		4-758-045-41 MANUAL INSTRUCTION (German, Dutch, Swedish, Italian) (LX56 AEP, IT)	
		< DIODE >				4-758-045-51 MANUAL INSTRUCTION (English, French, Spanish, Chinese) (LX56 AUS, E, PX, MX, EA, MY, SP, JE)	
D1	8-719-200-82	DIODE	11ES2			4-758-045-61 MANUAL INSTRUCTION (English, German, Polish) (LX56 EE, CIS)	
D2	8-719-200-82	DIODE	11ES2				
D3	8-719-200-82	DIODE	11ES2				
D4	8-719-200-82	DIODE	11ES2				

		< FUSE >				*****	
\triangle F1	1-532-613-XX	FUSE TIME-LAG (T200mA)				HARDWARE LIST	

*	1-649-845-11	RELAY BOARD (LX56)	*****		#1	7-621-773-87 SCREW (64)	
*****					#2	7-623-210-22 WASHER (57)	
					#3	7-624-110-04 6MM E RING	
					#4	7-685-105-01 SCREW (59)	
					#5	7-685-645-79 SCREW (68)	
					#6	7-685-646-79 SCREW (60)	
					#7	7-685-647-79 SCREW (58)	
					#8	7-688-005-01 WASHER (69)	

PS-LX56/LX56P

SONY.
SERVICE MANUAL

7091
US Model
Canadian Model
PX Model
Tourist Model
PS-LX56

AEP Model
E Model
Australian Model
PS-LX56/LX56P

UK Model
PS-LX56P

CORRECTION-1

Correct your service manual as shown below.

: indicates corrected portion.

Page	INCORRECT			CORRECT		
	No.	Part No.	Description	Part No.	Description	
8		4-758-045-11	MANUAL INSTRUCTION (English, French, Spanish, Portuguese) (LX56 AEP, CND)	3-758-045-11	MANUAL INSTRUCTION (English, French, Spanish, Portuguese) (LX56 AEP, CND)	
		4-758-045-21	MANUAL INSTRUCTION (English) (LX56 US)	3-758-045-21	MANUAL INSTRUCTION (English) (LX56 US)	
		4-758-045-41	MANUAL INSTRUCTION (German, Dutch, Swedish, Italian) (LX56 AEP, IT)	3-758-045-41	MANUAL INSTRUCTION (German, Dutch, Swedish, Italian) (LX56 AEP, IT)	
		4-758-045-51	MANUAL INSTRUCTION (English, French, Spanish, Chinese) (LX56 AUS,E,PX,MX,EA,MY,SP,JE)	3-758-045-51	MANUAL INSTRUCTION (English, French, Spanish, Chinese) (LX56 AUS,E,PX,MX,EA,MY,SP,JE)	
		4-758-045-61	MANUAL INSTRUCTION (English, German, Polish) (LX56 EE, CIS)	3-758-045-61	MANUAL INSTRUCTION (English, German, Polish) (LX56 EE, CIS)	